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     (FILE 'HOME' ENTERED AT 10:13:19 ON 15 NOV 2004)

     FILE 'HCAPLUS' ENTERED AT 10:14:06 ON 15 NOV 2004
L1             1 US20020072625/PN

     FILE 'REGISTRY' ENTERED AT 10:14:26 ON 15 NOV 2004

     FILE 'HCAPLUS' ENTERED AT 10:14:28 ON 15 NOV 2004
L2             TRA L1 1- RN :       17 TERMS

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L3            17 SEA L2

     FILE 'WPIX' ENTERED AT 10:14:31 ON 15 NOV 2004
L4             1 US20020072625/PN

=> b hcap
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FILE LAST UPDATED: 14 Nov 2004  (20041114/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> d all l1

L1   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2001:131168  HCAPLUS
DN   134:175263
ED   Entered STN:  22 Feb 2001
TI   Diethylenetriamine-N,N',N"-triacetic acid derivatives and antibodies and
     tracers for metal ion immunoassays
IN   Johnson, David K.
PA   USA
SO   U.S., 30 pp.
     CODEN: USXXAM
DT   Patent
LA   English
IC   ICM  G01N033-533
     ICS  C07D417-12; C07D413-12
NCL  436546000
CC   9-10 (Biochemical Methods)
     Section cross-reference(s): 15, 28, 79
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   US 6190923          B1     20010220    US 1998-148733         19980904
     US 2002072625       A1     20020613    US 2000-733801         20001209 <--
PRAI US 1997-58114P      P      19970905
     US 1998-148733      A      19980904
     US 1999-170246P     P      19991210
CLASS
 PATENT NO.      CLASS  PATENT FAMILY CLASSIFICATION CODES
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 US 6190923      ICM    G01N033-533
                 ICS    C07D417-12; C07D413-12
                 NCL    436546000
OS   MARPAT 134:175263
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AB The present invention relates to the field of immunoassays for metal ions. The invention presents: chelators, chelates, antibodies specific for the chelates, tracers comprising chelates conjugated to detectable labels, and immunoassays utilizing the foregoing. Diethylenetriamine-N(-(2)-(2-amidomethyl)(.alpha.-(1-tert butoxycarbonyl)-1-methylethoxyimino)-4-thiazoleacetic acid)-N,N',N'',N''-tetraacetic acid monoanhydride (I) was prepared, conjugated with bovine serum albumin, and loaded with cadmium(II) to produce an immunogen for antibody production in rabbits. I was also reacted with fluoresceinamine (isomer I) and loaded with cadmium ion to prepare a tracer for fluorescence polarization immunoassay of cadmium ions.

ST diethylenetriamine triacetate deriv metal ion immunoassay; cadmium ion fluorescence polarization immunoassay; chelate chelator tracer antibody immunoassay reagent

IT Immunoglobulins
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(G, conjugates with chelator; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Polymers, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as solid phases; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Tracers
(chelates conjugated to detectable labels; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Chemiluminescent substances
Chromophores
Luminescent substances
Phosphorescent substances
Radioactive substances
(conjugates with chelator; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Antigens
Hemocyanins
Thyroglobulin
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(conjugates with chelator; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Enzymes, uses
Lipopolysaccharides
Nucleic acids
Peptides, uses
Polysaccharides, uses
Proteins, specific or class
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(conjugates, with chelator; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Macromolecular compounds
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(conjugates, with chelators; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Chelates
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(conjugates, with labels; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Chelating agents
Immunoassay
Sample preparation
Test kits
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Trace metals
RL: ANT (Analyte); ANST (Analytical study)
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Chelates
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); FMU (Formation, unclassified); ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and

tracers for metal ion immunoassays)

IT Immunoassay
(fluorescence-polarization; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Fluorescent substances
(fluorophores, conjugates with chelator; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Materials
(inorg., as solid phases; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Metals, analysis
RL: ANT (Analyte); ANST (Analytical study)
(ions; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Immobilization, biochemical
(of chelator; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Polyamides, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(poly(amino acids), conjugates with chelator; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Gels
(porous, as solid phases; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Albumins, biological studies
RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(serum, bovine, conjugates with chelator or chelate; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Antibodies
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(to chelates; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT Glycoconjugates
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(with chelator; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT 22537-48-0DP, Cadmium 2+, complex with bovine serum albumin conjugates, biological studies 326591-61-1DP, conjugates with bovine serum albumin, complexed with cadmium(II)
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(as immunogens; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT 9004-34-6, Cellulose, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as solid phases; diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT 22537-48-0, Cd+2, analysis
RL: ANT (Analyte); ANST (Analytical study)
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT 2321-07-5D, Fluorescein, conjugates with chelator
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT 326591-62-2DP, complex with Cd, Cu, Zn or Hg
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT 326591-59-7P
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT 14302-87-5DP, Mercury 2+, complex with DTPA-fluorescein conjugates, analysis 15158-11-9DP, Copper 2+, complex with DTPA-fluorescein conjugates, analysis 23713-49-7DP, Zinc 2+, complex with DTPA-fluorescein conjugates, analysis
RL: ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process)
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT 326591-61-1DP, conjugates with bovine serum albumin
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT 109-73-9, n-Butylamine, reactions 124-09-4, 1,6-Diaminohexane, reactions 3326-34-9 10325-94-7, Cadmium(II) nitrate 23911-26-4, DTPA anhydride 27072-45-3, Fluorescein isothiocyanate 134203-50-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

IT 326591-60-0P 326591-62-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(diethylenetriamine-N,N',N-triacetic acid derivs. and antibodies and tracers for metal ion immunoassays)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; WO 9010709 1990 HCAPLUS
(2) Anon; WO 9500845 1995 HCAPLUS
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(16) Le Doussal, J; Cancer Res 1990, V50, P3445 HCAPLUS
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(23) Zoller, M; J Nucl Med 1992, V33(7), P1366 MEDLINE

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STRUCTURE FILE UPDATES: 14 NOV 2004 HIGHEST RN 780728-63-4
DICTIONARY FILE UPDATES: 14 NOV 2004 HIGHEST RN 780728-63-4

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http://www.cas.org/ONLINE/DBSS/registryss.html

=> d ide l3 tot

L3 ANSWER 1 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **326591-62-2** REGISTRY
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FS 3D CONCORD
MF C47 H51 N7 O18 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

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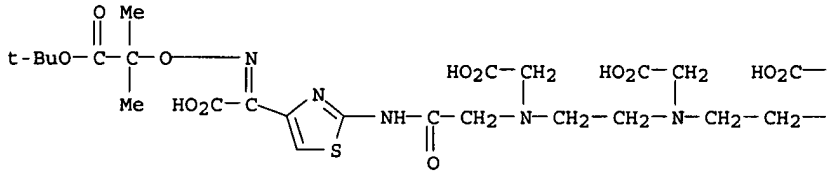

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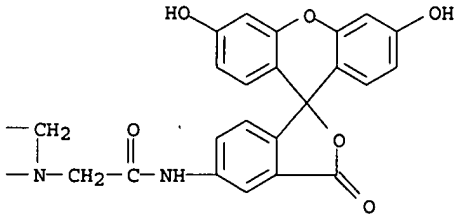

1 REFERENCES IN FILE CA (1907 TO DATE)
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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 2 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **326591-61-1** REGISTRY
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MF C27 H41 N7 O13 S
SR CA
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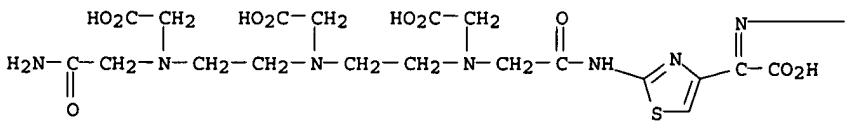

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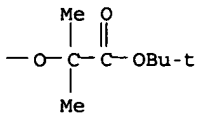

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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 3 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **326591-60-0** REGISTRY
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MF C27 H38 N6 O13 S
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RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

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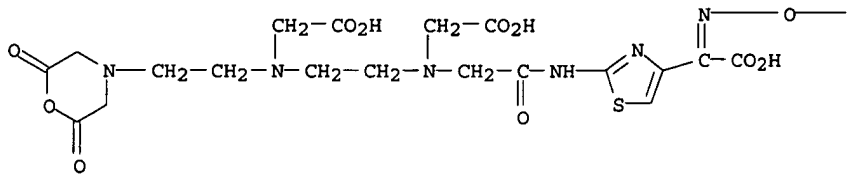

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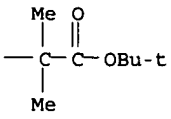

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1 REFERENCES IN FILE CA (1907 TO DATE)
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L3 ANSWER 4 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **326591-59-7** REGISTRY
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FS 3D CONCORD
MF C31 H49 N7 O13 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

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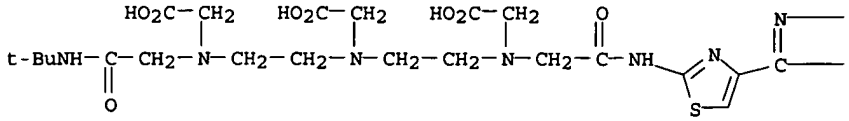

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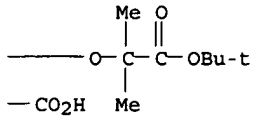

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FS 3D CONCORD
MF C13 H19 N3 O5 S
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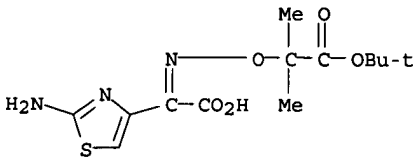
RL.P Roles from patents: RACT (Reactant or reagent)



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L3 ANSWER 6 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **27072-45-3** REGISTRY
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OTHER CA INDEX NAMES:
CN Fluorescein, isothiocyanato- (6CI, 8CI)
OTHER NAMES:
CN FITC
CN Fluorescein isothiocyanate
AR 25168-13-2
DR 64937-10-6, 28325-37-3, 29792-10-7
MF C21 H11 N O5 S
CI IDS, COM
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DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study);

CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
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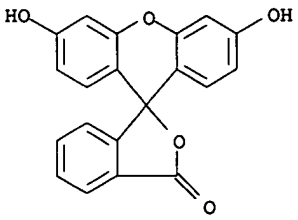

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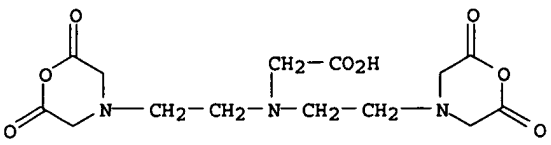
991 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2762 REFERENCES IN FILE CAPLUS (1907 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 7 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **23911-26-4** REGISTRY
CN Glycine, N,N-bis[2-(2,6-dioxo-4-morpholinyl)ethyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2,6-Morpholinedione, 4,4'-[[(carboxymethyl)imino]diethylene]di- (8CI)
CN Glycine, N,N-bis[2-(2,6-dioxomorpholino)ethyl]- (8CI)
OTHER NAMES:
CN 1,5-Bis(2,6-dioxomorpholino)-3-azapentane-3-acetic acid
CN Cyclic DTPA anhydride
CN Diethylenetriamine-N,N,N',N'',N''-pentaacetic acid N,N''-dianhydride
CN Diethylenetriaminepentaacetic acid dianhydride
CN Diethylenetriaminepentaacetic bisanhydride
CN Diethylenetriaminepentaacetic dianhydride
CN DTPA anhydride
CN DTPA cyclic anhydride
CN DTPA dianhydride
CN N,N-Bis[2-(2,6-dioxo-4-morpholinyl)ethyl]glycine
CN NSC 379317
FS 3D CONCORD
DR 167271-36-5, 120195-90-6, 119895-99-7, 111535-62-7, 150909-78-7, 291290-07-8
MF C14 H19 N3 O8
CI COM
LC STN Files: BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CSCHEM, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

479 REFERENCES IN FILE CA (1907 TO DATE)
87 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
479 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 8 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **23713-49-7** REGISTRY
CN Zinc, ion (Zn2+) (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Zinc cation
CN Zinc dication
CN Zinc divalent ion
CN Zinc ion
CN Zinc ion(2+)
CN Zinc(2+)
CN Zinc(II)
CN Zinc(II) cation
CN Zinc(II) ion
CN Zn2+
MF Zn
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CEN, CIN, DDFU, DETHERM*, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, NIOSHTIC, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Zn^{2+}

4711 REFERENCES IN FILE CA (1907 TO DATE)
317 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
4727 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 9 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **22537-48-0** REGISTRY
CN Cadmium, ion (Cd2+) (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Cadmium cation
CN Cadmium ion
CN Cadmium(2+)
CN Cd2+
MF Cd
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CEN, CIN, DDFU, DETHERM*, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL, VETU

(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Cd^{2+}

2602 REFERENCES IN FILE CA (1907 TO DATE)
98 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2612 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 10 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **15158-11-9** REGISTRY
CN Copper, ion (Cu2+) (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Copper divalent ion
CN Copper ion(2+)
CN Copper(2+)
CN Copper(2+) ion
CN Copper(II)
CN Copper(II) cation
CN Copper(II) ion
CN Cu2+
CN Cupric cation
CN Cupric ion
CN Cupric ion (Cu2+)
DR 12265-72-4, 16397-90-3
MF Cu
CI COM
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CEN, CIN, DDFU, DETHERM*, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, NIOSHTIC, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Cu^{2+}

10102 REFERENCES IN FILE CA (1907 TO DATE)
759 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

10136 REFERENCES IN FILE CAPLUS (1907 TO DATE)

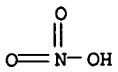
L3 ANSWER 11 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **14302-87-5** REGISTRY
CN Mercury, ion (Hg2+) (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Hg(II)
CN Hg2+
CN Mercuric cation
CN Mercuric ion
CN Mercury (Hg2+)
CN Mercury dication
CN Mercury(2+)
CN Mercury(II)
CN Mercury(II) ion
MF Hg
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CEN, CHEMINFORMRX, CIN, DDFU, DETHERM*, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Hg^{2+}

1637 REFERENCES IN FILE CA (1907 TO DATE)
55 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1647 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 12 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **10325-94-7** REGISTRY
CN Nitric acid, cadmium salt (8CI, 9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cadmium nitrate (7CI)
OTHER NAMES:
CN Cadmium dinitrate
CN Cadmium nitrate (Cd(NO3)2)
CN Cadmium(II) nitrate
DR 14177-24-3
MF Cd . 2 H N O3
CI COM
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, EMBASE, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: PROC (Process); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT

(Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
CRN (7697-37-2)



●1/2 Cd

1502 REFERENCES IN FILE CA (1907 TO DATE)
19 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1505 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

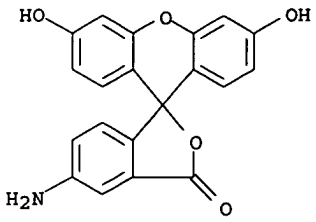
L3 ANSWER 13 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **9004-34-6** REGISTRY
CN Cellulose (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN .alpha.-Cellulose
CN .beta.-Amylose
CN 3mAQUACEL
CN 402-2B
CN Alicell LV
CN Alpha Cel PB 25
CN Alphafloc
CN Arbocel
CN Arbocel B 00
CN Arbocel B 600
CN Arbocel B 600/30
CN Arbocel B 800
CN Arbocel B 820C
CN Arbocel BC 1000
CN Arbocel BC 200
CN Arbocel BE 600
CN Arbocel BE 600/10
CN Arbocel BE 600/20
CN Arbocel BE 600/30
CN Arbocel BEM
CN Arbocel BFC 200
CN Arbocel BWW 40
CN Arbocel DC 1000
CN Arbocel FD 00
CN Arbocel FD 600/30
CN Arbocel FIC 200
CN Arbocel FT 40
CN Arbocel FT 600/30H
CN Arbocel G 350
CN Arbocel LZ 51
CN Arbocel M 80P
CN Arbocel TF 30HG
CN Arbocel TP 40
CN Arbocell TF 0406
CN Avicel
CN Avicel 101
CN Avicel 102
CN Avicel 2330
CN Avicel 2331
CN Avicel 955
CN Avicel CL 611
CN Avicel E 200
CN Avicel F 20
CN Avicel FD 100
CN Avicel FD 101
CN Avicel FD-F 20
CN Avicel M 06
CN Avicel M 15
CN Avicel M 25
CN Avicel NT 020
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for

DISPLAY
DR 12656-52-9, 9012-19-5, 9037-50-7, 9076-30-6, 58968-67-5, 99331-82-5, 67016-75-5, 67016-76-6, 51395-76-7, 61991-21-7, 61991-22-8, 68073-05-2, 70225-79-5, 74623-16-8, 75398-83-3, 77907-70-1, 84503-75-3, 89468-66-6, 39394-43-9, 209533-95-9
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyother, Polyother only
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
84039 REFERENCES IN FILE CA (1907 TO DATE)
9100 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
84123 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 14 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **3326-34-9** REGISTRY
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 5-amino-3',6'-dihydroxy-(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Fluorescein, 5-amino- (6CI, 7CI, 8CI)
OTHER NAMES:
CN 4-Aminofluorescein
CN 5-Aminofluorescein
CN Fluorescein amine isomer 1
CN Fluoresceinamine-I
FS 3D CONCORD
DR 1169-63-7, 189245-39-4, 392315-52-5
MF C20 H13 N O5
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, IPA, MEDLINE, MSDS-OHS, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Conference; Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical

study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

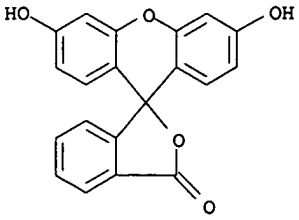


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

139 REFERENCES IN FILE CA (1907 TO DATE)
15 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
139 REFERENCES IN FILE CAPLUS (1907 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 15 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **2321-07-5** REGISTRY
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Fluorescein (8CI)
OTHER NAMES:
CN 3',6'-Dihydroxyfluoran
CN 3',6'-Fluorandiol
CN 3,6-Dihydroxyspiro[xanthene-9,3'-phthalide]
CN 9-(o-Carboxyphenyl)-6-hydroxy-3-isoxanthenone
CN Benzoic acid, 2-(6-hydroxy-3-oxo-3H-xanthen-9-yl)-
CN C.I. 45350:1
CN C.I. Solvent Yellow 94
CN D and C Yellow No. 7
CN D&C Yellow No. 7
CN Fluorescein acid
CN Japan Yellow 201
CN Japan Yellow No. 201
CN NSC 667256
CN Resorcinolphthalein
CN Solvent Yellow 94
CN Yellow fluorescein
AR 518-45-6
FS 3D CONCORD
DR 126605-73-0, 213880-86-5
MF C20 H12 O5
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM*, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, PS, RTECS*, TOXCENTER, TULSA, USAN, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical

study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5903 REFERENCES IN FILE CA (1907 TO DATE)
1276 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5920 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 16 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **124-09-4** REGISTRY
CN 1,6-Hexanediamine (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN .alpha.,.omega.-Hexanediamine
CN 1,6-Diamino-n-hexane
CN 1,6-Diaminohexane
CN 1,6-Hexylenediamine
CN Hexamethylenediamine
CN Hexylenediamine
CN Hi Perm
CN HMDA
CN NSC 9257
CN V 1
FS 3D CONCORD
MF C6 H16 N2
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

$H_2N-(CH_2)_6-NH_2$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7981 REFERENCES IN FILE CA (1907 TO DATE)
1664 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
7990 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L3 ANSWER 17 OF 17 REGISTRY COPYRIGHT 2004 ACS on STN
RN **109-73-9** REGISTRY
CN 1-Butanamine (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Butylamine (8CI)
OTHER NAMES:
CN 1-Aminobutane
CN 1-Butylamine
CN Mono-n-butylamine
CN Monobutylamine
CN n-Butylamine
CN Norvalamine
CN NSC 8029
FS 3D CONCORD
DR 50929-03-8, 85404-21-3, 42939-72-0
MF C4 H11 N
CI COM
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
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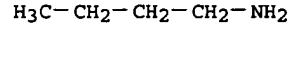
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)



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933 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
13801 REFERENCES IN FILE CAPLUS (1907 TO DATE)
5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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FILE 'WPIX' ENTERED AT 10:15:11 ON 15 NOV 2004
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FILE LAST UPDATED: 12 NOV 2004 <20041112/UP>

MOST RECENT DERWENT UPDATE: 200473 <200473/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

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>>> SMILES and ISOSMILES strings are no longer available as Derwent Chemistry Resource display fields <<<

=> d all l4

L4 ANSWER 1 OF 1 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
AN 2002-730936 [79] WPIX
DNN N2002-576153 DNC C2002-207021
TI Chelate-fluorophore tracer composition for use in screening and characterizing anti-chelate antibodies, comprises metal-chelated reagent.
DC A89 B04 D15 D16 E12 J04 S03
IN JOHNSON, D K
PA (JOHN-I) JOHNSON D K
CYC 1
PI US 2002072625 A1 20020613 (200279)* 28 G01N033-53 <--
ADT US 2002072625 A1 Provisional US 1999-170246P 19991210, US 2000-733801 20001209
PRAI US 1999-170246P 19991210; US 2000-733801 20001209
IC ICM G01N033-53
ICS C07F005-06; C07F007-28; C07F007-30; C07F015-00; G01N033-537; G01N033-543
AB US2002072625 A UPAB: 20021209
NOVELTY - A chelate-fluorophore tracer composition comprises a metal-chelated reagent.
DETAILED DESCRIPTION - A chelate-fluorophore tracer composition comprises a metal-chelated reagent of formula (I), (II) or (III).
m = 0 or 1;
n = 1, 2 or 3;
R1 = p-CH2C6H4-X-Y or H;
R2 = H or p-CH2C6H4-X-Y;
R3, R4 = H, CH3 or fused into a ring system;
X = -HNC(S)NH, -NHC(O)-, or -NH-C3N3Cl-NH-;
Y = fluorophore having fluorescence lifetime and quantum yield suitable for monitoring hapten-antibody binding at nanomolar concentrations by fluorescence polarization;
M = bismuth, tin, lead, aluminum, gallium, indium, thallium, elements of Group IIa, IIIa, IVa, Va, VIa, VIIa, VIII Ia or VIII Ib, elements of the lanthanide series, or elements of the actinide series (excluding lawrencium)
INDEPENDENT CLAIMS are included for:
(a) a method for preparing a chelate-fluorophore tracer composition comprising adding a solution of metal ion to an acidic solution of fluorophore tracer composition comprising a chelating reagent of formula (Ia), and adjusting the pH of the resulting solution to at least 7;
(b) a method for evaluating the metal selectivity of a macromolecular biological binding agent comprising combining serial dilutions thought to contain biological binding agent with a fixed concentration of first target chelate-fluorophore tracer composition, combining identical dilutions of the aqueous solution thought to contain the biological binding agent with a second non-target chelate-fluorophore tracer composition, subtracting polarization signal produced by solution containing the non-target tracer composition from that produced by the target tracer composition when measured at each sample dilution, and repeating the combining identical dilutions and subtracting steps to fully

define the metal selectivity of the macromolecular binding agent;

(c) an immunoassay method for determining the concentration of a target metal ion in an aqueous solution comprising combining an aliquot of the solution with a first assay reagent, adding to the resulting solution a second assay reagent comprising the above composition, adding to the second resulting solution a third assay reagent, measuring the polarization of the fluorescent signal obtained when the third resulting solution is excited with plane-polarized light, and comparing this value to those produced by standard solutions containing known concentrations of the target metal;and

(d) a test kit for measuring the concentration of a target metal in a test sample comprising standard solution containing known concentration of the target metal, a first assay reagent, and a second assay reagent.

The first assay reagent comprises a buffered solution of ethylenediaminetetraacetic acid (EDTA), diethylenetriamine-N,N,N',N,N-pentaacetic acid (DTPA), or its derivative. The third assay reagent comprises a macromolecular biological binding agent that binds specifically to the target chelate-fluorophore tracer composition.

USE - For use in screening, and characterizing anti-chelate antibodies and immunoassays for metal ions.

ADVANTAGE - The invention rapidly and readily defines the pattern of reactivity of an antibody raised against an EDTA- or DTPA-chelate of any particular target metal ion.

Dwg.0/13

FS CPI EPI

FA AB; GI; DCN

MC CPI: A12-W11L; B04-D03; B04-G01; B05-A01B; B05-A03; B11-C07A5; B12-K04; B12-K04E; D04-A01H; D05-H09; E05-B; E05-C; E05-D; E05-F; E05-H; E05-J; E05-K; E05-L; E05-M; E05-N; E05-P; J04-B01B; J04-C03

EPI: S03-E14H4

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STRUCTURE FILE UPDATES:   14 NOV 2004  HIGHEST RN 780728-63-4
DICTIONARY FILE UPDATES:  14 NOV 2004  HIGHEST RN 780728-63-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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L9                  STR
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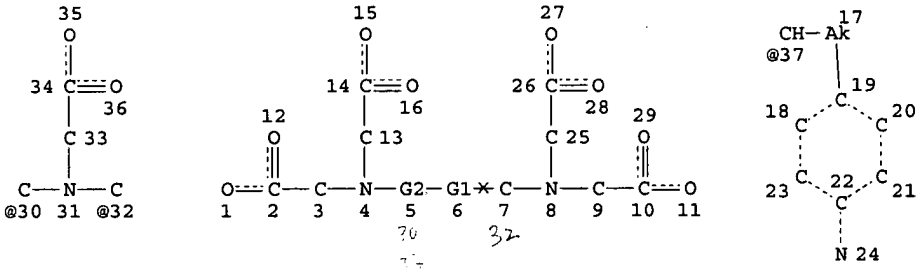


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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC  19
NUMBER OF NODES IS  37

STEREO ATTRIBUTES: NONE
L11          2345 SEA FILE=REGISTRY SSS FUL L9

100.0% PROCESSED  12376 ITERATIONS                    2345 ANSWERS
SEARCH TIME: 00.00.01


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L1             1 US20020072625/PN

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L2               TRA L1 1- RN :       17 TERMS

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L3            17 SEA L2

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L4             1 US20020072625/PN
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L6             15 L5

     FILE 'REGISTRY' ENTERED AT 10:56:10 ON 15 NOV 2004
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L8                QUE L5
L9                STR L5
L10            50 L9
L11          2345 L9 FULL
                  SAVE TEMP VEN801F0/A L11
L12           499 L11 AND M/ELS

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L13         11489 L12
                  E CHELAT/CT
                  E E11+ALL
L14         39143 CHELATES+NT/CT
                  E COORDINATION COMPOUNDS/CT
L15           927 (COORDINATION (1A) COMPOUND#) (L) CHELAT?
                  E CHELATION/CT
                  E E3+ALL
L16          3658 CHELATION/CT
                  E COORDINATION/CT
                  E E3+ALL
                  E E2
                  E E3+ALL
L17         27651 COMPLEXATION+OLD,NT/CT
L18          4592 L17 (L) CHELAT?
L19          1232 L13 AND L14-18
                  E JOHNSON D/AU
L20           430 E3,E24
                  E JOHNSON DAVID/AU
L21           279 E3,E43
L22             0 L13 AND L20-21
L23          1063 L19 AND (PY<=1999 OR PRY<=1999 OR AY<=1999 OR PRD<19991210 OR A
                  E FLUORESCENCE/CT
                  E E3+ALL
L24         88393 FLUORESCENCE+OLD,NT/CT
L25          8739 L24 (L) (LASER (1A) INDUC? OR TWO (1A) PHOTON)
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                  E E3+ALL
L26          1960 X-RAY+OLD,NT/CT (L) FLUORESCEN?
                  E FLUORESCENT SUBSTANCES/CT
                  E E3+ALL
L27         22525 FLUORESCENT SUBSTANCES+OLD,NT/CT
                  E DYES/CT
                  E E3+ALL
L28          7010 DYES+OLD,NT/CT(L) FLUORESC?
                  E INDICATORS/CT
                  E E3+ALL
L29         19819 INDICATORS+OLD,NT/CT
                  E FLUORESCENT SUBSTANCES/CT
                  E E3+ALL
L30          2879 FLUORESCENT SUBSTANCES+OLD,NT/CT (L) PROBE?
L31          5609 L29-30 (L) FLUORESC?
L32             1 L23 AND (L24 OR L25 OR L26 OR L27 OR L28 OR L30)
L33           266 L23 AND P/DT
L34            61 L33 AND US/PC.B
                  E CHELATING AGENTS/CT
                  E E3+ALL
L35         14165 CHELATING AGENTS+OLD,NT/CT
L36         41385 L11
L37            11 L36 AND L20-21 - INVENTORS STUFF
L38         41374 L36 NOT L37 - REMOVE INVENTORS STUFF
L39          5623 L38 AND (L14 OR L15 OR L16 OR L17 OR L18 OR L35)
L40          4377 L39 AND (PY<=1999 OR PRY<=1999 OR AY<=1999 OR PRD<19991210 OR A
L41            36 L40 AND (L24 OR L25 OR L26 OR L27 OR L28 OR L30)

=> b hcap
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FILE COVERS 1907 - 15 Nov 2004 VOL 141 ISS 21
FILE LAST UPDATED: 14 Nov 2004 (20041114/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all fhitstr l37 tot

L37 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:781621 HCAPLUS
DN 139:385443
ED Entered STN: 06 Oct 2003
TI An examination of the treatment of iron-dosed waste activated sludge by anaerobic digestion
AU Johnson, D. K.; Carliell-Marquet, C. M.; Forster, C. F.
CS School of Engineering, University of Birmingham, Birmingham, B15 2TT, UK
SO Environmental Technology (2003), 24(8), 937-945
CODEN: ENVTEV; ISSN: 0959-3330
PB Selper Ltd., Publications Division
DT Journal
LA English
CC 60-4 (Waste Treatment and Disposal)
Section cross-reference(s): 52
AB Anaerobic digestion is an important sludge treatment process enabling stabilization of the organic fraction of sewage sludge prior to land application. Any practice which might retard the anaerobic digestion process will jeopardize the stability of the resulting digested sludge. This paper reports on a study into the relative digestibility of Fe-dosed waste activated sludge (WAS) from a sewage treatment works (STW) with chemical P removal (CPR), in comparison to WAS from a works without P removal. Two laboratory scale anaerobic digesters (5 L) were fed initially with non Fe-dosed WAS (Works M) at a solids retention time of 19 days. After 2 mo the Fe-dosed CPR sludge (Works R) was introduced into the 2nd digester, resulting in a 32% decrease in biogas production and an increase in the methane content of the biogas from an average of 74 to 81%. Pre-treatment of the CPR sludge with Na sulfide and shear, both alone and in combination, caused the gas production to deteriorate further. Pre-acidification and pre-treatment with EDTA did result in an enhanced gas production but it was still not comparable with that of the digester being fed with non-Fe-dosed sludge. The daily gas production was linearly related to the amount of bound Fe in the sludge.
ST iron waste activated sludge anaerobic digestion
IT Alkalinity
(iron-dosed waste activated sludge anaerobic digestion)
IT Wastewater treatment sludge
(secondary; iron-dosed waste activated sludge anaerobic digestion)
IT Fatty acids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(volatile; iron-dosed waste activated sludge anaerobic digestion)
IT 7439-89-6, Iron, processes
RL: BCP (Biochemical process); POL (Pollutant); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(iron-dosed waste activated sludge anaerobic digestion)
IT 74-82-8, Methane, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(iron-dosed waste activated sludge anaerobic digestion)
IT 60-00-4, Edta, uses 1313-82-2, Sodium sulfide, uses
RL: NUU (Other use, unclassified); USES (Uses)
(iron-dosed waste activated sludge anaerobic digestion)
IT 7723-14-0, Phosphorus, processes
RL: REM (Removal or disposal); PROC (Process)
(iron-dosed waste activated sludge anaerobic digestion)
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anonymous; Safe Sludge Matrix:Guidelines for the Application of Sewage

Sludge to Agricultural Land 1999, AMPU 1234/C
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(3) Clesceri, L; Standard Methods for the Examination of Water and Wastewater, 20th Edn 1998
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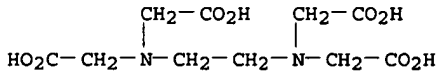
IT **60-00-4**, Edta, uses
RL: NUU (Other use, unclassified); USES (Uses)
(iron-dosed waste activated sludge anaerobic digestion)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L37 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:72595 HCAPLUS
DN 136:256403
ED Entered STN: 27 Jan 2002
TI Lead Analysis by Anti-Chelate Fluorescence Polarization Immunoassay
AU **Johnson, David K.**; Combs, Sherry M.; Parsen, John D.; Jolley, Michael E.
CS BioMetalix Inc., Twin Lakes, WI, 53181-601, USA
SO Environmental Science and Technology (2002), 36(5), 1042-1047
CODEN: ESTHAG; ISSN: 0013-936X
PB American Chemical Society
DT Journal
LA English
CC 79-6 (Inorganic Analytical Chemistry)
Section cross-reference(s): 19, 59, 60, 61
AB Lead concns. were determined by a fluorescence polarization immunoassay (FPIA) method that uses polyclonal antibodies raised against the Pb(II) chelate of ethylenediamine-N,N,N',N'-tetraacetic acid (EDTA). The technique is based on competition for a fixed concentration of antibody binding sites between Pb-EDTA, formed by treating the sample with excess EDTA, and a fixed concentration of a fluorescent analog of the Pb-EDTA complex. The objective was to correlate results obtained by FPIA with those produced by conventional atomic spectroscopy anal. of soils, solid waste leachates (produced by the Toxicity Characteristic Leachate Procedure; TCLP), airborne dust, and drinking H2O. Linear regression anal. of FPIA results for 138 soil samples containing 0-3094 ppm Pb(II) by flame atomic absorption spectroscopy and 40 TCLP exts. containing 0-668 ppm Pb(II) by inductively coupled plasma atomic emission spectroscopy produced correlation coeffs. (r2) of 0.96 and 0.93, resp. Pilot studies of mineral acid exts. of airborne dust trapped on fiberglass filters and of two sources of drinking H2O demonstrated the feasibility of also measuring lead in these matrixes by FPIA. The limit of detection under conditions that minimized sample dilution was .apprx.1 ppb, and cross reactivity with 15 nontarget metals was <0.5% in all cases. The methods are simple to perform and are amenable to field testing and mobile laboratory use, allowing timely and cost-effective characterization of suspected sources of lead contamination.
ST lead detn environment antichelate fluorescence polarization immunoassay

IT Dust
(airborne; lead determination in environmental samples by anti-chelate fluorescence polarization immunoassay)
IT Airborne particles
(dust; lead determination in environmental samples by anti-chelate fluorescence polarization immunoassay)
IT Immunoassay
(fluorescence-polarization; lead anal. by anti-chelate fluorescence polarization immunoassay)
IT Soil analysis
Solid wastes
(lead determination in environmental samples by anti-chelate fluorescence polarization immunoassay)
IT **60-00-4**, EDTA, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(in lead anal. by anti-chelate fluorescence polarization immunoassay)
IT 7439-92-1, Lead, analysis
RL: ANT (Analyte); ANST (Analytical study)
(lead anal. by anti-chelate fluorescence polarization immunoassay)
IT 7732-18-5, Water, analysis
RL: AMX (Analytical matrix); ANST (Analytical study)
(lead determination in environmental samples by anti-chelate fluorescence polarization immunoassay)
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(12) Khosraviani, M; Bioconjugate Chem 2000, V11, P267 HCAPLUS
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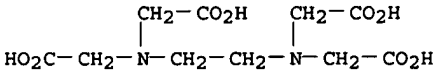
(22) U S Environmental Protection Agency; Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd ed 1997
(23) van Emon, J; Environ Sci Technol 1995, V29, P312A HCAPLUS
(24) Wylie, D; Anal Biochem 1991, V194, P381 HCAPLUS
IT **60-00-4**, EDTA, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(in lead anal. by anti-chelate fluorescence polarization immunoassay)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L37 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:147016 HCAPLUS
DN 116:147016
ED Entered STN: 17 Apr 1992
TI Structure-function relationships in indium-111 radioimmunoconjugates
AU Brandt, Kimberly D.; **Johnson, David K.**
CS Dep. 90M, Abbott Lab., Abbott Park, IL, 60064, USA
SO Bioconjugate Chemistry (1992), 3(2), 118-25
CODEN: BCCHES; ISSN: 1043-1802
DT Journal
LA English
CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 14, 15, 25

AB Conjugates formed by reaction of monoclonal antibody B72.3 with benzyl isothiocyanate derivs. of 4 amino polycarboxylate chelators (NTA, EGTA, EDTA, DTPA) were labeled with 111In and administered i.v. to athymic mice bearing antigen-pos. (LS174T) and antigen-neg. (A375) human tumor xenografts. Conjugate immunoreactivities, antibody dose, and xenograft size were controlled, so that the effects of varying chelate structure could be evaluated under conditions where immunol. and physiol. factors were effectively held constant Tissue distribution and excretion of the radiometal at 24 and 48 h postinjection correlated directly with chelate thermodn. stability (NTA < EGTA < EDTA < DTPA). Radioactivity levels in the blood and the LS174T xenograft increased, while kidney levels and excretion levels decreased, with increasing chelate stability. The kidney was the only normal organ that accumulated non-antibody-bound 111In uptake of radioactivity into all other tissues, and in particular the liver, being unaffected by changes in chelate structure. Mean transferrin saturation in the tumor-bearing athymic mice was 65%. The uptake of free 111In by serum transferrin is precluded in this model, leading to the observed renal localization of unbound label. Kidney:blood and kidney:LS174T activity ratios at 48 h postinjection provided the most sensitive indexes of conjugate instability in vivo, spanning 50- and 20-fold ranges, resp., between the least stable and the most stable conjugate. This antigen/antibody system and mouse model are well-suited to structure-function studies of Ig labels.

ST indium 111 monoclonal antibody metab tumor; scintigraphy tumor radioimmunoconjugate structure

IT Neoplasm
(immunoscintigraphy of, with indium-111-monoclonal antibody conjugates, structure-function relationships studies in)

IT Molecular structure-biological activity relationship
(bioaccumulating, of indium-111-monoclonal antibody conjugates, scintigraphy of tumor in relation to)

IT Scintigraphy
(immuno-, of tumor, with indium-111-monoclonal antibody conjugates, structure-function relationships studies in)

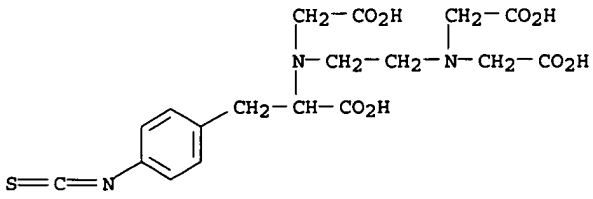
IT Antibodies
RL: SPN (Synthetic preparation); PREP (Preparation)
(monoclonal, indium-111 conjugates, preparation and metabolism and biodistribution of, in tumor, immunoscintigraphy and structure in relation to)

IT 15750-15-9DP, Indium-111, monoclonal antibody conjugates
117499-22-6P 117499-23-7P 131322-70-8DP, indium-111-monoclonal antibody conjugates 139163-26-1DP, indium-111-monoclonal antibody conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and metabolism and biodistribution of, in tumor, immunoscintigraphy and structure in relation to)

IT **117499-22-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and metabolism and biodistribution of, in tumor, immunoscintigraphy and structure in relation to)

RN 117499-22-6 HCAPLUS

CN Phenylalanine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(carboxymethyl)-4-isothiocyanato- (9CI) (CA INDEX NAME)



L37 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1991:181421 HCAPLUS

DN 114:181421

ED Entered STN: 17 May 1991

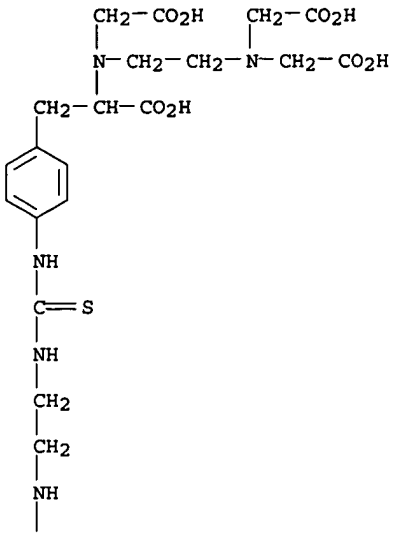
TI Hepatobiliary delivery of polyaminopolycarboxylate chelates: synthesis and characterization of a cholic acid conjugate of EDTA and biodistribution and imaging studies with its indium-111 chelate

AU Betebenner, David A.; Carney, Patrick L.; Zimmer, A. Michael; Kazikiewicz, Joanne M.; Brucher, Erno; Sherry, A. Dean; **Johnson, David K.**

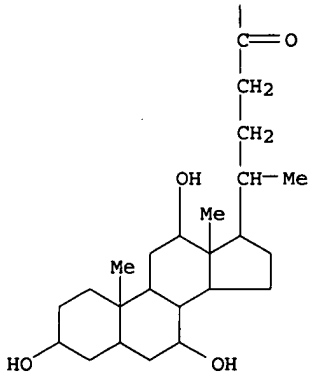
CS Abbott Lab., Abbott Park, IL, 60064, USA

SO Bioconjugate Chemistry (1991), 2(2), 117-23
CODEN: BCCHES; ISSN: 1043-1802
DT Journal
LA English
CC 8-9 (Radiation Biochemistry)
AB A conjugate in which the steroid nucleus of cholic acids was linked to EDTA via an 11-atom spacer was obtained by reacting the succinimidyl ester of cholic acid with the amine formed by reaction of a benzyl isothiocyanate derivative of EDTA with N-(tert-butoxycarbonyl)ethylenediamine and subsequent deprotection. Potentiometric titration studies with model complexes showed that the EDTA moiety retained the ability to form 1:1 chelates of high thermodn. stability, although formation consts. were some 3-4 log k units lower for complexes of the conjugate than for the analogous chelates with underivatized EDTA. A complex formed between the cholic acid-EDTA conjugate and 111InIII was cleared rapidly into the liver when injected i.v. into mice, with subsequent excretion from the liver into the intestine, with good visualization of the gallbladder in images obtained at 20-25 min postinjection. Thus, conjugation to cholic acid provides a useful means for the hepatobiliary delivery of EDTA chelates that otherwise exhibit predominantly extracellular distribution and renal clearance.
ST indium 111 EDTA cholate scintigraphy hepatobiliary
IT Scintigraphy
(of hepatobiliary tract, with indium-111-EDTA-cholic acid conjugates)
IT Biliary tract
Gallbladder
Liver
(scintigraphy of, with indium-111-EDTA-cholic acid conjugates)
IT 81-25-4, Cholic acid
RL: PROC (Process)
(conversion of, to succinimido ester)
IT 15750-15-9DP, Indium-111, EDTA-cholic acid conjugates
132910-41-9DP, indium-111 conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and biodistribution and scintigraphy with, of hepatobiliary tract)
IT **117499-22-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and butoxycarbonylation of)
IT **132957-81-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conjugation to trihydroxycholanoic acid)
IT 70090-26-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and conjugation with carboxymethylbis(carboxymethyl)aminoethylaminoethylthioureidophenylalanine trihydrochloride)
IT **132885-27-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and debutoxycarbonylation and amination of)
IT **132910-41-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and labeling of)
IT **132910-41-9DP**, indium-111 conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and biodistribution and scintigraphy with, of hepatobiliary tract)
RN 132910-41-9 HCAPLUS
CN L-Phenylalanine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(carboxymethyl)-4-[[thioxo[[2-[[(3.alpha.,5.beta.,7.alpha.,12.alpha.)-3,7,12-trihydroxy-24-oxocholan-24-yl]amino]ethyl]amino]methyl]amino]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



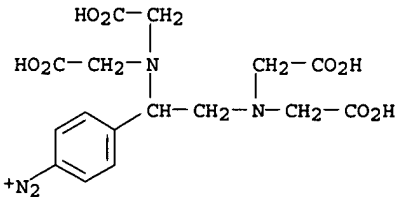
PAGE 2-A



●2 HCl

L37 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:117699 HCAPLUS
DN 114:117699
ED Entered STN: 06 Apr 1991
TI Characterization of antibody-chelator conjugates: determination of chelator content by terbium fluorescence titration
AU Brandt, Kimberly D.; Schnobrich, Karen E.; **Johnson, David K.**
CS Dep. 90M, Abbott Lab., Abbott Park, IL, 60064, USA
SO Bioconjugate Chemistry (1991), 2(1), 67-70
CODEN: BCCHES; ISSN: 1043-1802
DT Journal
LA English
CC 8-1 (Radiation Biochemistry)
AB Fluorescence titrns. were performed by adding varying mole ratios of Tb(III) to antibody conjugates formed by benzyl isothiocyanate derivs. of 3 different polyaminopolycarboxylate chelators (NTA, EDTA, and DTPA) and the results compared to values for average chelator content obtained by 57Co binding assays. For 2 different murine monoclonal antibodies, the average chelator content obtained by Tb fluorescence titration correlated closely with that measured by the 57Co binding assay. It is concluded that lanthanide fluorescence titrns. provide a useful alternative to radiometal binding assays for the determination of chelator content in protein-chelator

conjugates.
ST antibody chelator conjugate terbium fluorescence titrn
IT Immunoglobulins
RL: BIOL (Biological study)
(G1, monoclonal, conjugates, with chelators, chelator determination in, by terbium fluorescence titration)
IT **53641-65-9 117499-22-6 117499-23-7**
131322-70-8
RL: ANT (Analyte); ANST (Analytical study)
(detn of, in antibody conjugates by terbium fluorescence titration)
IT 7440-27-9, Terbium, uses and miscellaneous
RL: USES (Uses)
(in chelator determination in antibody conjugates by fluorescence titration)
IT **53641-65-9**
RL: ANT (Analyte); ANST (Analytical study)
(detn of, in antibody conjugates by terbium fluorescence titration)
RN 53641-65-9 HCAPLUS
CN Benzenediazonium, 4-[1,2-bis[bis(carboxymethyl)amino]ethyl]- (9CI) (CA INDEX NAME)



L37 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:511673 HCAPLUS
DN 113:111673
ED Entered STN: 29 Sep 1990
TI An optimized antibody-chelator conjugate for imaging of carcinoembryonic antigen with indium-111
AU Sumerdon, Gail A.; Rogers, Patrick E.; Lombardo, Christine M.; Schnobrich, Karen E.; Melvin, Susan L.; Hobart, Edward D.; Tribby, Ilse I. E.; Stroupe, Stephen D.; **Johnson, David K.**
CS Abbott Lab., Abbott Park, IL, 60064, USA
SO Nuclear Medicine and Biology (1990), 17(2), 247-54
CODEN: NMBIEO; ISSN: 0883-2897
DT Journal
LA English
CC 8-9 (Radiation Biochemistry)
AB A monoclonal antibody to carcinoembryonic antigen showing minimal cross-reactivity with blood cells and normal tissues was derivatized with benzylisothiocyanate derivs. of EDTA and DTPA. Seven chelators per Ig could be incorporated without loss of immunoreactivty. The resulting conjugates, labeled with 111In, showed low liver uptake in animals. A cold kit, comprising the DTPA conjugate at a molarity of antibody bound chelator >1 .times. 10-4M, gave radiochem. yields of In-labeled antibody of .gtoreq.95% and was stable for 1 yr.
ST indium 111 carcinoembryonic antigen monoclonal antibody; imaging indium 111 antibody
IT Heart, metabolism
Kidney, metabolism
Liver, metabolism
Organ
Spleen, metabolism
(indium-111-labeled anti-carcinoembryonic antigen monoclonal antibodies metabolism in, in neoplasia, scintigraphy in relation to)
IT Blood
(indium-111-labeled anti-carcinoembryonic antigen monoclonal antibody conjugates distribution in, in neoplasia, scintigraphy in relation to)
IT Neoplasm, metabolism
(indium-111-labeled anti-carcinoembryonic antigen monoclonal antibody conjugates metabolism by, scintigraphy in relation to)
IT Scintigraphy
(of neoplasms, with indium-111-labeled anti-carcinoembryonic antigen monoclonal antibody conjugates)
IT Antigens
RL: SPN (Synthetic preparation); PREP (Preparation)

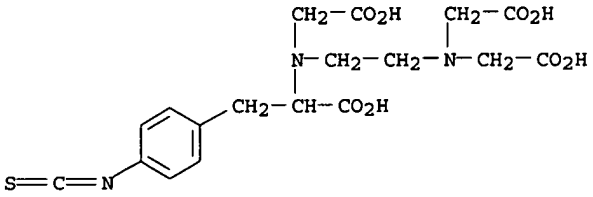
(CEA (carcinoembryonic antigen), indium-111-labeled monoclonal antibodies to, preparation and metabolism and biodistribution of, in neoplasia, scintigraphy in relation to)

IT Antibodies
RL: SPN (Synthetic preparation); PREP (Preparation)
(monoclonal, indium-111-chelator conjugates, preparation and metabolism and biodistribution of, in neoplasia, scintigraphy in relation to)

IT 15750-15-9DP, Indium-111, anti-carcinoembryonic antigen monoclonal antibody conjugates **117499-22-6DP**, indium-111-labeled anti-carcinoembryonic antigen monoclonal antibody conjugates **117499-23-7DP**, indium-111-labeled anti-carcinoembryonic antigen monoclonal antibody conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and metabolism and biodistribution of, in neoplasia, scintigraphy in relation to)

IT **117499-22-6DP**, indium-111-labeled anti-carcinoembryonic antigen monoclonal antibody conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and metabolism and biodistribution of, in neoplasia, scintigraphy in relation to)

RN 117499-22-6 HCAPLUS
CN Phenylalanine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(carboxymethyl)-4-isothiocyanato- (9CI) (CA INDEX NAME)



L37 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:112060 HCAPLUS
DN 112:112060
ED Entered STN: 31 Mar 1990
TI Monoclonate antibodies labeled with radioelements
IN **Johnson, David K.**; Rogers, Patrick E.
PA Abbott Laboratories, USA
SO Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K049-02
ICS A61K043-00
CC 1-6 (Pharmacology)
Section cross-reference(s): 8, 9

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 315188	A2	19890510	EP 1988-118414	19881104
	EP 315188	A3	19900110		
	EP 315188	B1	19940601		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
	US 5130118	A	19920714	US 1987-118148	19871106
	AU 8824664	A1	19890727	AU 1988-24664	19881103
	AU 619218	B2	19920123		
	AT 106252	E	19940615	AT 1988-118414	19881104
	ES 2056875	T3	19941016	ES 1988-118414	19881104
	JP 01250327	A2	19891005	JP 1988-281144	19881107
	JP 2792871	B2	19980903		
	US 5217704	A	19930608	US 1991-815598	19911227
	JP 10330289	A2	19981215	JP 1998-24453	19980205
	JP 3074160	B2	20000807		
PRAI	US 1987-118148	A	19871106		
	US 1988-261737	A	19881026		
	EP 1988-118414	A	19881104		
	JP 1988-281144	A3	19881107		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 315188	ICM	A61K049-02

ICS A61K043-00

AB A metal ion-scavenging procedure and antibody composition are given for radioimmunoscintigraphy and cytotoxic radioimmunotherapy. The compns. have chelator concns. >10-4 M, which are optimized with respect to their metal-binding capacity, such that highly efficient labeling of the antibody is achieved in a simple one-step procedure, using readily available sources of radiometal ions. IgG1 murine monoclonal antibody to the carcinoembryonic antigen was reacted with the DTPA derivative N-(carboxymethyl)-N-(2-aminoethyl)-N'-(carboxymethyl)-N'-[2-[bis(carboxymethyl)amino]ethyl]-4-isocyanatophenyl alanine-3 HCl. The conjugate obtained was purified by dialysis and labeled with 111InCl3. The labeled antibody showed 96% 111In incorporation even at 146 days after conjugate preparation ELISA tests showed no loss of immunoreactivity.

ST monoclonal antibody radioelement labeling; anticancer radioelement antibody; radioimmunoscintigraphy antibody indium labeling

IT Neoplasm inhibitors
(monoclonal antibodies labeled with radioelements for)

IT Scintigraphy
(immuno-, monoclonal antibodies labeled with radioelements for)

IT Antibodies
RL: BIOL (Biological study)
(monoclonal, labeling of, with radioelements, for radioimmunoscintigraphy and cytotoxic radioimmunotherapy)

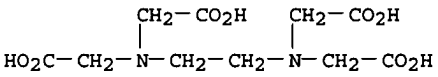
IT **60-00-4D**, EDTA, derivs. **117526-32-6**
RL: BIOL (Biological study)
(in monoclonal antibody labeling, with radioelements)

IT 15750-15-9, Indium-111, biological studies 50800-85-6, Indium-111 chloride
RL: BIOL (Biological study)
(monoclonal antibody labeling by, for radioimmunoscintigraphy and cytotoxic radioimmunotherapy)

IT **60-00-4D**, EDTA, derivs.
RL: BIOL (Biological study)
(in monoclonal antibody labeling, with radioelements)

RN 60-00-4 HCAPLUS

CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L37 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1990:94715 HCAPLUS

DN 112:94715

ED Entered STN: 18 Mar 1990

TI Bifunctional chelating agents and conjugates for diagnostic imaging and therapy

IN **Johnson, David K.**; Kline, Steven J.

PA Abbott Laboratories, USA

SO Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW

DT Patent

LA English

IC ICM C07C101-28
ICS C07C161-04; C07C157-09; A61K049-02

CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 9, 25

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 279307	A2	19880824	EP 1988-101776	19880208
	EP 279307	A3	19900509		
	EP 279307	B1	19930922		
	EP 279307	B2	19961113		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
	US 5057302	A	19911015	US 1988-136180	19880104
	AT 94866	E	19931015	AT 1988-101776	19880208
	ES 2059411	T3	19941116	ES 1988-101776	19880208
	AU 8811685	A1	19880818	AU 1988-11685	19880212
	AU 605241	B2	19910110		
	JP 63290854	A2	19881128	JP 1988-31697	19880213
	US 5227474	A	19930713	US 1991-706149	19910528
PRAI	US 1987-14517		19870213		

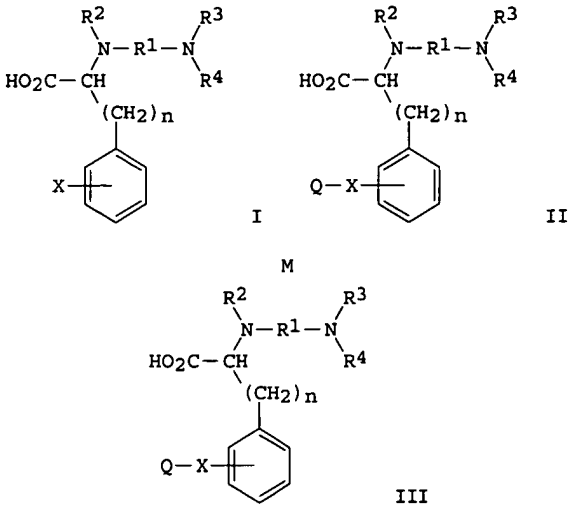
US 1988-136180 19880104
EP 1988-101776 19880208

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 279307	ICM	C07C101-28
	ICS	C07C161-04; C07C157-09; A61K049-02

OS MARPAT 112:94715

GI



I II

III

AB Compds. I [X = NO2, substrate reactive moiety; R1 = (CH2)q, (CH2)qN(R5)(CH2)r, (CH2)qO(CH2)rO(CH2)s, (CH2)qNR5(CH2)rNR6(CH2)s, ortho-C6H10, ortho-C6H6; R2-6 = H, CH2CO2H, ortho-CH2C6H4OH; R2 and R3 may be fused to form a ring (CH2)tNR3(CH2)uNR8(CH2)v; n = 0-10; q, r, s, t, u, v = 2, 3], substrate conjugates II (Q = substrate; X = substrate reactive moiety; all else as above), and substrate-metal ion conjugates III (M = metal; all else as above) are prepared for in vivo diagnostic imaging and therapy. N-(Carboxymethyl)-N-[2-(bis(carboxymethyl)amino)ethyl]-(4-isothiocyanatophenyl)alanine dihydrochloride (preparation described) (0.34 g) was reacted with 0.39 g N-(t-butoxycarbonyl)thylenediamine (preparation described) and triethylamine in DMF at 0.degree. for 15 min and room temperature for 48 h. H2O was then added and the mixture was stirred for 6 h and evaporated The residue was chromatographed on Bio-Rad AGI-X4 (elution with 3.5 M CH2O2 followed by 7 M CH2O2), deprotected with trifluoroacetic acid at room temperature for 6 h, and chromatographed on the same column (elution with CH2O2 1, 2, 3, 4 M), yielding 0.14 g N-(carboxymethyl)-N-[2-(bis-(carboxymethyl)amino)ethyl]-[4-(N'-(2-aminoethyl)thiourea)phenyl]alanine-3HCl (IV). A cholic acid-EDTA-IV conjugate was formed by reacting 31 mg IV with 25.5 mg cholic acid ester (prepared by reacting cholic acid with N-hydroxysuccinimide, 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide-HCl and triethylamine) and 36 mg triethylamine for 6 days at room temperature The residue was chromatographed on the same material as above (elution with 5M CH2O2), treated with 4M HCl 4.times., dissolved in H2O and, lyophilized. This conjugate was labeled with 111In and used to image the hepatobiliary system in rabbits. The conjugate (0.59 mL, 1.69 mCi/mL) was injected into the ear vein of female New Zealand rabbits. At 10 min post-injection, the liver showed intense uptake of the conjugate, with no observable activity remaining in the level after 1 h.

ST polyaminocarboxylate deriv chelating agent; scintigraphy liver polyaminocarboxylate chelator; radiolabeled polyaminocarboxylate chelator diagnosis therapy

IT Radiography
(contrast media for, radioisotope-antibody-polyaminocarboxylate chelator conjugates as)

IT Blood
Heart, metabolism
Intestine, composition
Kidney, metabolism

Liver, metabolism
Lung, metabolism
Muscle, metabolism
Neoplasm, composition
Skin, metabolism
Spleen, metabolism
(indium-111 distribution in, after indium-111-antibody-polyaminocarboxylate chelator complex injection)

IT Scintigraphy
(of liver, cholic acid-EDTA-indium 111 conjugate for)

IT Chelating agents
(polyaminopolycarboxylate, conjugates, diagnostic imaging and therapy in relation to)

IT Liver
(scintigraphy of, cholic acid-EDTA-indium 111 conjugate for)

IT Cell
Pharmaceuticals
Antibodies
RL: BIOL (Biological study)
(with polyaminopolycarboxylate chelating agents, diagnostic imaging and therapy in relation to)

IT Antigens
RL: SPN (Synthetic preparation); PREP (Preparation)
(CEA (carcinoembryonic antigen), monoclonal antibody to, conjugates with isothiocyantophenyl chelators, preparation of, diagnostic imaging in relation to)

IT Glycoproteins, specific or class
RL: SPN (Synthetic preparation); PREP (Preparation)
(TAG-72, conjugates with isothiocyanatophenylalanine chelators, preparation of, diagnostic imaging in relation to)

IT Bile acids
Carbohydrates and Sugars, compounds
Glycoproteins, specific or class
Lipids, compounds
Nucleic acids
Nucleosides, compounds
Nucleotides, compounds
Peptides, compounds
Polysaccharides, compounds
Proteins, specific or class
RL: BIOL (Biological study)
(conjugates, with polyaminopolycarboxylate chelating agents, diagnostic imaging and therapy in relation to)

IT Radioelements, compounds
RL: BIOL (Biological study)
(conjugates, with polyaminopolycarboxylate chelators, for diagnostic imaging and therapy)

IT Intestine, neoplasm
(large, carcinoma, diagnosis of, carcinoembryonic antigen antibody-isothiocyanatophenylalanine chelator-indium 111 conjugates in)

IT Antibodies
RL: SPN (Synthetic preparation); PREP (Preparation)
(monoclonal, conjugates with polyaminopolycarboxylate chelators, preparation of, diagnostic imaging in relation to)

IT Antibodies
RL: BIOL (Biological study)
(monoclonal, with polyaminopolycarboxylate chelating agents, diagnostic imaging and therapy in relation to)

IT Polyamides, compounds
RL: BIOL (Biological study)
(poly(amino acids), conjugates, with polyaminopolycarboxylate chelating agents, diagnostic imaging and therapy in relation to)

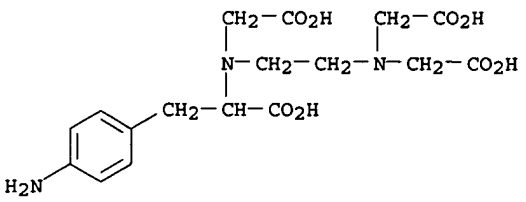
IT 123687-21-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with nitrophenylpyruvate)

IT 24991-23-9DP, aminoethylthioureaphenyl chelating agent conjugates
25513-46-6DP, Poly(glutamic acid), aminoethylthioureaphenyl chelating agent conjugates 38335-24-9P 117499-16-8P 117499-17-9P
117499-18-0P 117499-19-1P 117499-20-4P 117499-21-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 123687-25-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of and reaction with bromoacetate)

IT 123687-23-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of and reaction with sodium borohydride)
IT 123699-75-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, and reaction with bromoacetic acid)
IT **117499-10-2P 117499-12-4DP**, carcinoembryonic antigen monoclonal antibody conjugates **117499-12-4P 117499-15-7P 123687-19-4P** 123687-22-9DP, carcinoembryonic antigen monoclonal antibody conjugates 123687-22-9P 123687-24-1P 123699-74-1P **132957-81-4DP**, cholic acid conjugates **132957-81-4DP**, poly(glutamic acid) conjugates **132957-81-4P 172036-02-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as chelating agent, diagnostic imaging and therapy in relation to)
IT 15750-15-9DP, Indium-111, polyaminopolycarboxylate conjugates
RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(preparation of, as diagnostic imaging agents)
IT 81-25-4DP, Cholic acid, polyaminopolycarboxylate chelating agent conjugates
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of, for reagent preparation for diagnostic imaging and therapy)
IT 31620-90-3, Nitrobenzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with acetylglycine and nitrobenxylideneoxazole)
IT 78312-00-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with acetylglycine and nitrobenzaldehyde)
IT 117499-14-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bromoacetate)
IT 107-15-3, Ethylenediamine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with butyldicarbonate)
IT 6066-82-6, N-Hydroxysuccinimide
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cholic acid)
IT 1892-57-5, 1-Ethyl-3-(3-dimethylaminopropyl)carbodiimide
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cholic acid derivative)
IT 121-44-8, Triethylamine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diethylenetriamine and phenylacetonitrile derivative)
IT 80994-44-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diethylenetriamine and triethylamine)
IT 2315-36-8, 2-Chloro-N,N-diethylacetamide
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diethylenetriamine derivative)
IT 24424-99-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ethylenediamine)
IT 26247-79-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with isobutylchloroformate and methylmorpholine)
IT 109-02-4, 4-Methylmorpholine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with isobutylchloroformate and sodium polyglutamate)
IT 543-27-1, Isobutylchloroformate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylmorpholine and sodium polyglutamate)
IT 543-24-8, N-Acetylglycine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nitrobenzylideneoxazole and nitrobenzaldehyde)
IT 64-18-6, Formic acid, reactions 79-08-3, Bromoacetic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nitrophenylalanine derivative)
IT 16940-66-2, Sodium borohydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nitrophenylpropionate derivative)
IT 333-18-6, Ethylenediamine dihydrochloride 929-59-9, 1,8-Diamino-3,6-dioxaoctane 1121-22-8, trans-1,2-Diaminocyclohexane
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with nitrophenylpyruvate)
IT 111-40-0, Diethylenetriamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phenylacetonitrile derivative and triethylamine)
IT **117499-10-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as chelating agent, diagnostic imaging and therapy in relation to)
RN 117499-10-2 HCAPLUS
CN Phenylalanine, 4-amino-N-[2-[bis(carboxymethyl)amino]ethyl]-N-(carboxymethyl)-, trihydrochloride (9CI) (CA INDEX NAME)



● 3 HCl

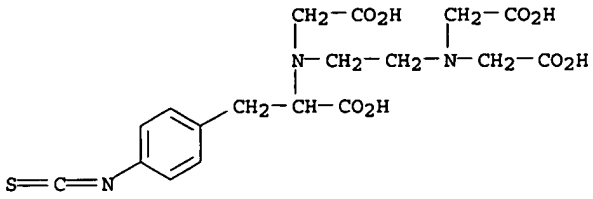
L37 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1989:38706 HCAPLUS
DN 110:38706
ED Entered STN: 04 Feb 1989
TI Synthesis of novel bifunctional chelators and their use in preparing monoclonal antibody conjugates for tumor targeting
AU Westerberg, David A.; Carney, Patrick L.; Rogers, Patrick E.; Kline, Steven J.; **Johnson, David K.**
CS Dep. 90M, Abbott Lab., Abbott Park, IL, 60064, USA
SO Journal of Medicinal Chemistry (1989), 32(1), 236-43
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
CC 25-22 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 1, 8
OS CASREACT 110:38706
AB 4-SCNC6H4CH2CH(CO2H)N(CH2CO2H)CH2CH2NRCH2CO2H [I; R = CH2CO2H, CH2CH2N(CH2CO2H)2] were prepared by reductive alkylation of the relevant polyamine with 4-O2NC6H4CH2COCO2H followed by carboxymethylation, reduction of the NO2 group, and reaction with C(S)Cl2. I reacted with monoclonal antibody B72.3 to give antibody-chelator conjugates containing 3 mol of chelator per mol of Ig, without significant loss of immunol. activity. Such conjugates, labeled with 111In, selectively bound a human colorectal carcinoma implanted in nude mice when given i.v. Uptake into normal tissues was comparable to or lower than that reported for analogous conjugates with known bifunctional chelators. Substitution with a protein reactive group at this position in polyaminopolycarboxylate chelators does not sufficiently alter the chelating properties of these mols. to affect biodistribution adversely, and thus provides a general method for the synthesis of such chelators.
ST monoclonal antibody conjugate polyaminopolycarboxylate immunoradiotherapy; indium 111 Ig complex antitumor; EDTA conjugate indium complex tumor targeting; B72 3 monoclonal antibody conjugate
IT Neoplasm inhibitors
(carcinoma, Ig-bound polyaminopolycarboxylate complexes with indium-111, for colorectal carcinoma)
IT Radiotherapy
(immuno-, of colorectal carcinoma, with Ig-bound polyaminopolycarboxylate complexes with indium-111)
IT Antibodies
RL: SPN (Synthetic preparation); PREP (Preparation)
(monoclonal, conjugates with polyaminopolycarboxylates complexed with indium-111, preparation and tumor targeting activities of)
IT 79-08-3, Bromoacetic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation by, of ethylenediamine and diethylenetriamine derivs.)
IT 2315-36-8, 2-Chloro-N,N-diethylacetamide

RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylation by, of partially protected diethylenetriamine)
IT 58632-95-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(butoxycarbonylation by, of diethylenetriamine)
IT 111-40-0, Diethylenetriamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(butoxycarbonylation of)
IT 15750-15-9, Indium-111, uses and miscellaneous
RL: USES (Uses)
(complexation of, with Ig-bound polyaminepolycarboxylates, for tumor targeting)
IT 463-71-8, Thiophosgene
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation reactions of, with polyaminopolycarboxylate chelating agents)
IT 555-16-8, 4-Nitrobenzaldehyde, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with acetylglycine)
IT 543-24-8, N-Acetylglycine
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with nitrobenzaldehyde)
IT **117499-12-4P 117526-32-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and addition reaction of, with monoclonal antibody B72.3)
IT 117499-14-6P 117499-19-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and alkylation of, with bromoacetic acid)
IT 117499-16-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and alkylation of, with diethylchloroacetamide)
IT **117499-15-7P** 117499-20-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and catalytic reduction of)
IT **117499-10-2P 117499-11-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and condensation reaction of, with thiophosgene)
IT 117499-17-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and deblocking of, with trifluoroacetic acid)
IT 70973-01-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of, with hydrochloric acid)
IT 117499-18-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reductive alkylation of, with (nitrophenyl)pyruvic acid)
IT 38335-24-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reductive amination of, with ethylenediamine and diethylenetriamine)
IT 117499-13-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and ring opening of, with aqueous acetic acid)
IT 117499-21-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and saponification of)
IT **117499-22-6DP**, conjugate with monoclonal antibody B72.3, complex with indium-111 **117499-23-7DP**, conjugate with monoclonal antibody B72.3, complex with indium-111
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and tumor targeting activity of, for colorectal carcinoma)
IT 333-18-6, Ethylenediamine dihydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reductive alkylation of, with (nitrophenyl)pyruvic acid)
IT **117499-12-4P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and addition reaction of, with monoclonal antibody B72.3)

RN 117499-12-4 HCAPLUS

CN Phenylalanine, N-[2-[bis(carboxymethyl)amino]ethyl]-N-(carboxymethyl)-4-isothiocyanato-, dihydrochloride (9CI) (CA INDEX NAME)



O_2 HCl

L37 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1989:36204 HCAPLUS

DN 110:36204

ED Entered STN: 04 Feb 1989

TI Development of phosphonate derivatives of gadolinium chelates for NMR imaging of calcified soft tissues

AU Adzamli, I. Kofi; Gries, H.; **Johnson, D.**; Blau, M.

CS Dep. Radiol., Harvard Med. Sch., Boston, MA, USA

SO Journal of Medicinal Chemistry (1989), 32(1), 139-44
CODEN: JMCMAR; ISSN: 0022-2623

DT Journal

LA English

CC 8-9 (Radiation Biochemistry)

AB Several classes of Gd complexes were synthesized for use as NMR contrast agents in the detection of soft-tissue calcification. Class I was made up of strongly chelated Gd-DTPA complexes with 1 carboxylate arm coupled to a phosphonate-containing mol. through an amide link. Class II complexes were formed by Gd with several aminophosphonates and phosphonocarboxylic acids. Class III were Gd complexes of weak chelates containing no phosphonate. The Ca-seeking ability of each complex was assessed by in vivo bone uptake. Tissue distribution in normal rats showed that only the complexes of Gd-DTPA modified with a diphosphonate group and Gd-EDTMP [ethylenediaminetetrabis(methylenephosphonate)] showed adequate bone localization at the concns. required for NMR contrast enhancement (.apprx.20% of a 100 .mu.mol/kg dose).

ST gadolinium phosphonate NMR imaging bone

IT Blood
(gadolinium chelates distribution in, magnetic resonance imaging in relation to)

IT Bone, metabolism
Heart, metabolism
Kidney, metabolism
Liver, metabolism
Muscle, metabolism
Spleen, metabolism
(gadolinium chelates metabolism by, magnetic resonance imaging in relation to)

IT Tomography
(NMR, of calcified tissues, gadolinium phosphonate chelates preparation and evaluation for)

IT 6323-99-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to DTPA anhydride)

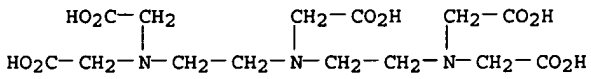
IT 40391-99-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to activated DTPA)

IT 117185-06-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to aminoethylphosphonic acid)

IT **67-43-6**, DTPA
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to aminohydroxylpropylenediphosphonic acid)

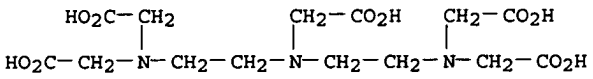
IT 106145-40-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to aminophosphonobutyric acid)
IT 2041-14-7, 2-Aminoethylphosphonic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to cyclic DTPA dianhydride)
IT 117185-07-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with aminobutane bis(phosphonic acid di-Et ester))
IT 90315-14-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with dioxomorpholinoethyl(ethoxycarbonylmethyl)diazaoctan
e diacid)
IT 50-81-7D, L-Ascorbic acid, gadolinium complexes 3088-53-7 3217-01-4D,
gadolinium complexes 5434-95-7D, gadolinium complexes 10138-52-0,
Gadolinium chloride (GdCl3) 99867-87-5D, gadolinium complexes
117185-02-1D, gadolinium complexes
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(metabolism and biodistribution of, magnetic resonance imaging in relation
to)
IT 110019-17-5P 117185-03-2DP, gadolinium complexes 117185-04-3DP,
gadolinium complexes 117185-05-4DP, gadolinium complexes
117201-80-6DP, gadolinium complexes
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and metabolism and biodistribution of, magnetic resonance imaging
in relation to)
IT **67-43-6**, DTPA
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to aminohydroxylpropylenediphosphonic acid)
RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA
INDEX NAME)



L37 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1981:614719 HCAPLUS
DN 95:214719
ED Entered STN: 12 May 1984
TI A rapid assay for evaluation of iron-chelating agents in rats
AU Pippard, Martin J.; **Johnson, David K.**; Finch, Clement A.
CS Div. Hematol., Univ. Washington, Seattle, WA, USA
SO Blood (1981), 58(4), 685-92
CODEN: BLOOAW; ISSN: 0006-4971
DT Journal
LA English
CC 1-1 (Pharmacodynamics)
AB A radioisotope assay in intact rats is presented based on the transient
labeling by ferritin 59Fe of the main source of chelatable Fe within
hepatocytes. The isotope was maximally available to chelators during the
1st 6 h after its injection, nearly all the excretion being in the bile.
The bile 59Fe-to-total Fe ratio was independent of both the chelator and
its dose. However, in Fe-loaded rats, the ratio was reduced, and the
isotope excretion was a less sensitive measure of intrahepatic chelation.
In the proposed assay, test chelators were given to normal rats 2 h after
an i.v. injection of 59Fe-ferritin. Four hours later, the 59Fe in the
liver and in the gut gave a sensitive measure of the mobilization of
hepatic Fe to the bile. In addition, chemical Fe detns. identified a small
alternative source of urinary chelate with agents known to promote urine
excretion in man. The assay gave a rapid and precise screen for chelators
given by parenteral and oral routes.
ST iron chelator detn body fluid
IT Chelating agents and Complexing agents
(for iron, evaluation of, in body fluids)
IT Urine analysis
(iron-chelating agents determination in)
IT **67-43-6** 138-14-7 303-38-8 737-86-0 1170-02-1
RL: BIOL (Biological study)
(as iron chelator, screening method for, in body fluids)
IT 7439-89-6, biological studies
RL: BIOL (Biological study)

(chelating agents for, evaluation of, in body fluids)
IT 67-43-6
RL: BIOL (Biological study)
(as iron chelator, screening method for, in body fluids)
RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



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L41 ANSWER 1 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:523969 HCAPLUS
DN 139:106550
ED Entered STN: 09 Jul 2003
TI Membrane-permeant peptide complexes for medical imaging, diagnostics, and pharmaceutical therapy
IN Piwnica-Worms, David
PA Washington University, USA
SO U.S., 41 pp., Cont.-in-part of U.S. Ser. No. 336,093.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K051-00
ICS A61M036-14
NCL 424001690; 424001110; 424001650; 424009100; 534010000; 534014000
CC 63-8 (Pharmaceuticals)
Section cross-reference(s): 1, 8
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6589503	B1	20030708	US 2000-557465	20000425 <--
US 6348185	B1	20020219	US 1999-336093	19990618 <--
WO 2001082975	A2	20011108	WO 2001-US13179	20010424
WO 2001082975	A3	20020829		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1294409	A2	20030326	EP 2001-928805	20010424
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JP 2003531871	T2	20031028	JP 2001-579848	20010424
US 2003219375	A1	20031127	US 2003-368280	20030218 <--
US 2003219378	A1	20031127	US 2003-374035	20030225 <--
PRAI US 1998-90087P	P	19980620	<--	
US 1999-336093	A2	19990618	<--	
US 2000-557465	A	20000425		
WO 2001-US13179	W	20010424		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6589503	ICM	A61K051-00
	ICS	A61M036-14
	NCL	424001690; 424001110; 424001650; 424009100; 534010000; 534014000
US 6589503	ECLA	A61K047/48R4; A61K051/08Z; C07K014/16F; C12N009/64F2C22B <--
US 2003219375	ECLA	A61K047/48R4; A61K051/08Z; C07K014/16F; C12N009/64F2C22B <--
US 2003219378	ECLA	A61K047/48R4; A61K051/08Z; C07K014/16F; C12N009/64F2C22B <--

AB Methods and compns. for medical imaging, evaluating intracellular processes and components, radiotherapy of intracellular targets, and drug

delivery by the use of novel cell membrane-permeant peptide conjugate coordination and covalent complexes having target cell specificity are provided. Kits for conjugating radionuclides and other metals to peptide coordination complexes are also provided.

ST peptide complex prepn diagnosis imaging therapy; Tat peptide conjugate diagnosis imaging therapy

IT Carcinoma
Leukemia
(accumulation in; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT Hydrocarbons, biological studies
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(chains, functional linkers; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT Peptides, biological studies
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(from HIV-1 Tat protein; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT Oligonucleotides
Oligosaccharides, biological studies
Peptide nucleic acids
Proteins
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(functional linkers; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT Apoptosis
(imaging of; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT Scintigraphy
(imaging using 99Tc-Tat peptide complexes; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT Biological transport
Cell membrane
Chelating agents
Diagnosis
Drug delivery systems
Drug targets
Dyes
Fluorescent dyes
Human
Imaging
Protein motifs
Protein sequences
Radiopharmaceuticals
Radiotherapy
(membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT Radionuclides, biological studies
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT Kidney
Liver
(scintigraphy; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT Enzymes, biological studies
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(substrates; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT Lysosome
(targeting; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT 253141-51-4DP, technetium-99 or rhenium complexes and reaction products with fluorescein maleimide
RL: DGN (Diagnostic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT 253141-49-0P
RL: DGN (Diagnostic use); PKT (Pharmacokinetics); RCT (Reactant); SPN

(Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT 14133-76-7DP, Technetium 99, complexes with Tat peptide conjugates, biological studies 253141-49-0DP, technetium-99 or rhenium complexes 320749-15-3DP, technetium-99 or rhenium complexes 371918-27-3DP, technetium-99 or rhenium complexes 371918-28-4DP, technetium-99 or rhenium complexes 518052-07-8DP, technetium-99 or rhenium complexes 518052-08-9DP, technetium-99 or rhenium complexes 518052-09-0DP, technetium-99 or rhenium complexes 518052-10-3DP, technetium-99 or rhenium complexes 518052-11-4DP, technetium-99 or rhenium complexes 518052-12-5DP, technetium-99 or rhenium complexes 518052-14-7DP, technetium-99 or rhenium complexes 518052-15-8DP, biotinylated, technetium-99 or rhenium complexes 518052-16-9DP, biotinylated, technetium-99 or rhenium complexes 518052-24-9DP, biotinylated, technetium-99 or rhenium complexes 554406-19-8DP, technetium-99 complexes and reaction products with fluorescein maleimide
RL: DGN (Diagnostic use); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT 2321-07-5DP, Fluorescein, maleimide derivs., reaction products with Tat peptide conjugate 7440-15-5DP, Rhenium, complexes with Tat peptide conjugates
RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT **60-00-4**, EDTA, biological studies **67-43-6**, DTPA 7429-91-6, Dysprosium, biological studies 7439-88-5, Iridium, biological studies 7439-89-6, Iron, biological studies 7439-96-5, Manganese, biological studies 7439-98-7, Molybdenum, biological studies 7440-02-0, Nickel, biological studies 7440-03-1, Niobium, biological studies 7440-04-2, Osmium, biological studies 7440-05-3, Palladium, biological studies 7440-06-4, Platinum, biological studies 7440-15-5, Rhenium, biological studies 7440-16-6, Rhodium, biological studies 7440-18-8, Ruthenium, biological studies 7440-19-9, Samarium, biological studies 7440-25-7, Tantalum, biological studies 7440-26-8, Technetium, biological studies 7440-27-9, Terbium, biological studies 7440-30-4, Thulium, biological studies 7440-33-7, Tungsten, biological studies 7440-47-3, Chromium, biological studies 7440-48-4, Cobalt, biological studies 7440-50-8, Copper, biological studies 7440-52-0, Erbium, biological studies 7440-53-1, Europium, biological studies 7440-54-2, Gadolinium, biological studies 7440-55-3, Gallium, biological studies 7440-60-0, Holmium, biological studies 7440-64-4, Ytterbium, biological studies 7440-74-6, Indium, biological studies 13981-25-4, Copper-64, biological studies 13981-50-5, Cobalt-57, biological studies 14119-09-6, Gallium-67, biological studies 14133-76-7, Technetium-99, biological studies 14378-26-8, Rhenium-188, biological studies 14392-02-0, Chromium-51, biological studies 14998-63-1, Rhenium-186, biological studies 15750-15-9, Indium-111, biological studies 15757-14-9, Gallium-68, biological studies 15758-35-7, Ruthenium-97, biological studies 60239-18-1, DOTA 104077-19-2 154561-14-5 209408-51-5 253141-48-9 253141-50-3 276690-79-0 276690-80-3 363139-68-8 373594-89-9 373594-90-2 373594-92-4 406482-86-8 553719-88-3 557124-38-6 557124-39-7 557124-40-0 557124-41-1 557124-42-2 557124-43-3
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT 253141-51-4P 320749-15-3DP, N-biotinylated 320749-15-3P 371918-27-3P 371918-28-4P 518052-07-8P 518052-08-9P 518052-09-0P 518052-10-3P 518052-11-4P 518052-12-5P 518052-14-7P 518052-16-9DP, N-biotinylated 518052-24-9DP, N-biotinylated 554406-19-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and labeling of; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT 141436-78-4, Protein kinase C 141588-27-4, Protein kinase G 142008-29-5, Protein kinase A 475489-73-7, Calmodulin kinase II
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(protein sequences of; membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

IT 9001-92-7, Protease 9013-19-8, Isomerase 9013-79-0, Esterase
9026-81-7, Nuclease 9027-41-2, Hydrolase 9031-56-5, Ligase
9031-96-3, Peptidase 9032-92-2, Glycosidase 9047-61-4, Transferase
9055-15-6, Oxidoreductase 9073-60-3, .beta.-Lactamase 81669-70-7,
Metalloprotease 122191-40-6, Caspase 1 144114-21-6, HIV protease
158736-49-3, .beta.-Secretase 169592-56-7, Caspase 3 179241-78-2,
Caspase 8 180189-96-2, Caspase 9 182372-14-1, Caspase 2 182372-15-2,
Caspase 6 182762-08-9, Caspase 4 189088-85-5, Caspase 10
189258-14-8, Caspase 7 192465-11-5, Caspase 5 211237-05-7, Caspase 13
216503-96-7, Caspase 11 230951-53-8, Caspase 12 338454-52-7,
.gamma.-Secretase 338455-07-5, .alpha.-Secretase 372092-80-3, Protein
kinase 375798-61-1, Protein phosphatase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(targeting; membrane-permeant peptide complexes for medical imaging,
diagnostics, and therapy)

IT 556163-40-7 556163-41-8 556163-42-9 556163-43-0 556163-44-1
556163-45-2 556163-46-3 556163-47-4 556163-48-5
RL: PRP (Properties)
(unclaimed protein sequence; membrane-permeant peptide complexes for
medical imaging, diagnostics, and pharmaceutical therapy)

IT 373594-95-7
RL: PRP (Properties)
(unclaimed sequence; membrane-permeant peptide complexes for medical
imaging, diagnostics, and pharmaceutical therapy)

RE.CNT 107 THERE ARE 107 CITED REFERENCES AVAILABLE FOR THIS RECORD

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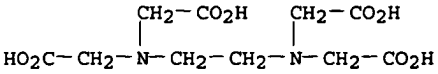
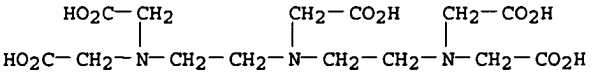
IT **60-00-4**, EDTA, biological studies **67-43-6**, DTPA
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy)

RN 60-00-4 HCAPLUS

CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 2 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:632839 HCAPLUS
DN 137:165812
ED Entered STN: 22 Aug 2002
TI Process for the preparation of fluorogenic phenolic compounds
IN Savage, M. Dean; Fujimoto, Edward K.
PA Pierce Chemical Company, USA
SO U.S., 5 pp., Cont. of U.S. Ser. No. 207,235, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07C065-03
NCL 562478000
CC 9-5 (Biochemical Methods)
Section cross-reference(s): 80
FAN.CNT 1

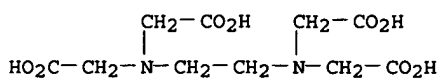
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6437179	B1	20020820	US 2000-642515	20000818 <--
PRAI US 1998-207235	B1	19981208 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6437179	ICM	C07C065-03
	NCL	562478000

AB A method is disclosed for preparing a fluorogenic phenolic compound with improved optical qualities for use in formulating a substrate solution for assay of peroxidase or peroxide activity. The method involves forming a solution under anoxic conditions which contains the phenolic compound and an aminopolycarboxylic acid or aminopolyphosphonic acid, or salt thereof, metal chelating agent and, while the solution is maintained under anoxic conditions, recovering the compound from the solution in an optically enhanced condition. A composition of matter is also disclosed which includes the fluorogenic phenolic compound in crystal form and a trace quantity of the metal chelating agent.
ST process fluorogenic phenolic compd
IT Crystal morphology
Crystallization
Fluorescent substances
Fluorometry
(process for preparation of fluorogenic phenolic compds.)
IT **Chelates**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(process for preparation of fluorogenic phenolic compds.)
IT 9003-99-0, Peroxidase
RL: ANT (Analyte); ANST (Analytical study)
(horseradish; process for preparation of fluorogenic phenolic compds.)
IT 14915-07-2, Peroxide
RL: ANT (Analyte); ANST (Analytical study)
(process for preparation of fluorogenic phenolic compds.)
IT 501-97-3, 3-(p-Hydroxyphenyl) propionic acid
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(process for preparation of fluorogenic phenolic compds.)
IT **60-00-4**, EDTA, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(process for preparation of fluorogenic phenolic compds.)
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

(1) Anon; JP 04234998 1992 HCAPLUS
IT **60-00-4**, EDTA, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(process for preparation of fluorogenic phenolic compds.)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 3 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:489613 HCAPLUS
DN 135:72131
ED Entered STN: 06 Jul 2001
TI Parallel sequencing of surface immobilized nucleic acid mixtures by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage
IN Fischer, Achim
PA BASD-Lynx Bioscience A.-G., Germany
SO PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM C12N015-00
CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 9
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001048184	A2	20010705	WO 2000-EP13157	20001222 <--
	WO 2001048184	A3	20020516		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 19962893	A1	20010712	DE 1999-19962893	19991223 <--
	DE 10051564	A1	20020801	DE 2000-10051564	20001018
	US 2003186256	A1	20031002	US 2002-168557	20020821 <--
PRAI	DE 1999-19962893	A	19991223 <--		
	DE 2000-10051564	A	20001018		
	WO 2000-EP13157	W	20001222		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001048184	ICM	C12N015-00
DE 10051564	ECLA	C12Q001/68E4; C12Q001/68E4; C12Q001/68E4
US 2003186256	ECLA	C12Q001/68E4; C12Q001/68E4 <--

AB The invention relates to a method for carrying out the parallel sequencing of at least two different nucleic acids contained in a nucleic acid mixture, whereby: (a) a surface is prepared which comprises islands of nucleic acids of the same type of tertiary nucleic acids; (b) opposite strands of the tertiary nucleic acids GTN are prepared; (c) the GTN are lengthened by one nucleotide, whereby the nucleotide, on the 2'-OH position or on the 3'-OH position, carries a protective group, which prevents an addnl. lengthening, and the nucleotide carries a mol. group, which enables the identification of the nucleotide; (d) the incorporated nucleotide is identified; (e) the protective group is removed and said mol. group of the incorporated nucleotide is removed or modified, and; (f) step (c) and the following steps are repeated until the desired sequence information has been obtained. A method for parallel sequences of several nucleic acids is described. The method involves capturing individual mols. on an an ordered array of immobilized primers. The primers are extended one base at a time using base analogs with the hydroxy groups blocked and carrying a reporter group. After incorporation of the a base, the reporter signals are collected and the blocking and reporter groups cleaved to allow another round of primer extension. The method can be applied to amplification products arising from a pair of immobilized primers. The amplification product can be cleaved with a nuclease to give two fragments

that can be sequenced in parallel.

ST primer immobilized DNA sequencing parallel; deprotection cyclic dNTP DNA sequencing primer extension; fluorescent reporter DNA sequencing primer extension

IT Biotechnology
(biochips, for parallel nucleic acid sequencing; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT **Fluorescent dyes**
(conjugates with dNTPs, cyclic cleavage of; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT **Chelating agents**
(deprotection using; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT Conformation
(hairpin loop; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT Oligonucleotides
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(immobilized, as sequencing primers; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT Primers (nucleic acid)
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(immobilized, cyclic base analog extension of; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT Protective groups
(in dNTPs, cyclic cleavage of; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT Bond
(ionic, protecting group bonding via; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT Nucleoside triphosphates
RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(labeled, base protected; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT Photolysis
(of protecting groups; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT DNA sequence analysis
Immobilization, biochemical
(parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

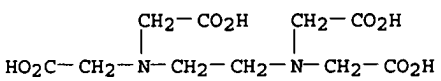
IT Anhydrides
Esters, analysis
Ethers, analysis
Peroxides, analysis
RL: ARU (Analytical role, unclassified); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(protecting group; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT 57-12-5, cyanide ion, reactions 60-00-4, EDTA, reactions
302-04-5, Thiocyanate ion, reactions 16984-48-8, Fluoride ion, reactions
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(deprotection using; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

IT **60-00-4**, EDTA, reactions
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(deprotection using; parallel sequencing of surface immobilized nucleic acid mixts. by addition of single nucleotides labeled with reporter groups and blocked hydroxyl groups followed by deprotection and label cleavage)

RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 4 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:338752 HCAPLUS
DN 134:337920
ED Entered STN: 11 May 2001
TI Improved automated LPA assay and methods of detecting cancer
IN Russell, John C.; Granados, Edward N.
PA Abbott Laboratories, USA
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C12Q001-00
CC 9-2 (Biochemical Methods)
Section cross-reference(s): 14
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001032916	A2	20010510	WO 2000-US30280	20001102 <--
	WO 2001032916	A3	20020711		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1238099	A2	20020911	EP 2000-976865	20001102 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003530081	T2	20031014	JP 2001-535596	20001102 <--
PRAI	US 1999-163534P	P	19991104 <--		
	WO 2000-US30280	W	20001102		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001032916	ICM	C12Q001-00

AB The present invention relates to an improved enzymic diagnostic assay to detect carcinoma by measuring various lysophospholipids, including lysophosphatidic acid (LPA), in a patient. In a preferred embodiment, this assay measures the human plasma level of LPA in an automated format with a minimal number of reagents and with reduced incubation periods. The present invention also comprises several addnl. tech. improvements to the current LPA assays disclosed in the prior art.

ST automated LPA assay detecting cancer

IT Neoplasm
(Gynecol.; improved automated LPA assay and methods of detecting cancer)

IT Diagnosis
(cancer; improved automated LPA assay and methods of detecting cancer)

IT Ovary, neoplasm
Peritoneum
(carcinoma; improved automated LPA assay and methods of detecting cancer)

IT Uterus, neoplasm
(cervix, carcinoma; improved automated LPA assay and methods of detecting cancer)
IT Neoplasm
(diagnosis; improved automated LPA assay and methods of detecting cancer)
IT Blood
(disease; improved automated LPA assay and methods of detecting cancer)
IT Uterus, neoplasm
(endometrium, carcinoma; improved automated LPA assay and methods of detecting cancer)
IT Antimicrobial agents
Ascites
Blood analysis
Body fluid
Buffers
Calibration
Carcinoma
Cations
Cerebrospinal fluid
Chelating agents
Color formers
Concentration (condition)
Detergents
Digestion, chemical
Disease, animal
Electrochemical analysis
Extraction
Fluids
Fluorescence
Fluorescent substances
Hydrolysis
Liquids
Mixtures
Ovary, neoplasm
Pleural fluid
Saliva
Solutions
Stability
Surgery
Test kits
Time
Urine analysis
pH
(improved automated LPA assay and methods of detecting cancer)
IT Lysophosphatidic acids
Lysophosphatidylethanolamines
Lysophosphatidylinositols
Lysophosphatidylserines
Lysophospholipids
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(improved automated LPA assay and methods of detecting cancer)
IT Enzymes, uses
Reagents
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(improved automated LPA assay and methods of detecting cancer)
IT Lysophosphatides
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(lysophosphatidylglycerols; improved automated LPA assay and methods of detecting cancer)
IT Mammary gland
(neoplasm; improved automated LPA assay and methods of detecting cancer)
IT Solvents
(organic; improved automated LPA assay and methods of detecting cancer)
IT 6493-05-6, Pentoxifylline 9001-84-7, Phospholipase A2 9043-29-2, Phospholipase A1 37762-06-4, Zaprinast
RL: ANT (Analyte); ANST (Analytical study)
(improved automated LPA assay and methods of detecting cancer)
IT 53-84-9, NAD 55-91-4, Diisopropyl fluorophosphate 57-03-4, Glycerol-3-phosphate 58-68-4, NADH 60-80-0, Phenazone 66-71-7, 1,10-Phenanthroline 70-18-8, Glutathione, uses 83-07-8, 4-Aminoantipyrine 83-89-6, Quinacrine 108-95-2, Phenol, uses 108-95-2D, Phenol, derivs., uses 128-08-5, N-Bromosuccinimide

138-85-2, p-Chloromercuribenzoate 302-95-4, Sodium deoxycholate 329-98-6, PMSF 402-71-1 618-39-3, Benzamidine 645-15-8, Bis(p-nitrophenyl)phosphate 772-33-8, 2-Hydroxy-5-nitrobenzyl bromide 1074-12-0, Phenylglyoxal 2321-07-5, Fluorescein 2364-67-2, L-Palmitoylcarnitine 3483-12-3, Dithiothreitol 7722-84-1, Hydrogen peroxide, uses 9001-62-1, Lipase 9001-85-8, Phospholipase B 9001-86-9, Phospholipase C 9001-87-0, Phospholipase D 9002-07-7, Trypsin 9002-93-1, Triton X-100 9003-99-0, Peroxidase 9013-93-8, Phospholipase 9014-27-1, Serine deaminase 9028-14-2, Glycerol dehydrogenase 9028-86-8, Aldehyde dehydrogenase 9030-66-4, Glycerokinase 9038-55-5, Serine dehydrogenase 9046-28-0, Glycerol-3-phosphate oxidase 9054-69-7, Ethanolamine deaminase 9075-65-4, Glycerol-3-phosphate dehydrogenase 12040-65-2, Glycerolphosphate 13558-31-1 26281-43-6, 3,5-Dichloro-2-hydroxybenzenesulfonic acid 26305-03-3, Pepstatin A 28822-58-4, IBMX 29925-17-5, Ro-20-1724 35142-05-3, Aristolic Acid 55123-66-5, Leupeptin 66701-25-5, E-64 75088-80-1, Manoalide 88070-98-8, HELSS 134531-42-3 338740-95-7
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(improved automated LPA assay and methods of detecting cancer)

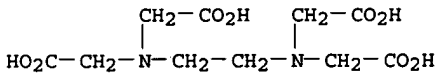
IT 56-81-5, Glycerol, analysis 57-55-6, Propylene glycol, analysis **60-00-4**, EDTA, analysis 64-69-7 67-42-5, EGTA 67-56-1, Methanol, analysis 67-66-3, Chloroform, analysis 67-68-5, Dimethyl sulfoxide, analysis 128-53-0, N-Ethylmaleimide 151-21-3, Sodium dodecyl sulfate, analysis 7440-70-2, Calcium, analysis 8051-08-9, Antifoam 10043-35-3, Boric acid, analysis 14127-61-8, Ca(2+), analysis 14265-44-2, Phosphate, analysis 14302-87-5, Hg(2+), analysis 15158-11-9, Copper(2+), analysis 15438-31-0, Fe(2+), analysis 16397-91-4, Manganese ion(2+), analysis 20074-52-6, Fe(3+), analysis 22537-22-0, Mg(2+), analysis 22537-23-1, Al(3+), analysis 22541-53-3, Co(2+), analysis 23713-49-7, Zinc(2+), analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(improved automated LPA assay and methods of detecting cancer)

IT 9001-92-7, Protease
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(inhibitors; improved automated LPA assay and methods of detecting cancer)

IT 9025-82-5, Phosphodiesterase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; improved automated LPA assay and methods of detecting cancer)

IT **60-00-4**, EDTA, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(improved automated LPA assay and methods of detecting cancer)

RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 5 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:911492 HCAPLUS
DN 134:57905
ED Entered STN: 29 Dec 2000
TI Dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts containing wool and dyeing the materials with fluorescent dyes and manufacture of the materials and manufacture of sports balls therefrom
IN Brasier, Alan John; Smith, David Anthony
PA Milliken Industrials Limited, UK
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM D06P001-00
ICS D06P003-82; D06L003-10; A63B039-00
CC 40-6 (Textiles and Fibers)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000079038	A1	20001228	WO 2000-GB2290	20000623 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1198635 A1 20020424 EP 2000-940535 20000623 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL
JP 2003502526 T2 20030121 JP 2001-505379 20000623 <--
PRAI GB 1999-14510 A 19990623 <--
GB 2000-9783 A 20000420
GB 2000-11752 A 20000517
WO 2000-GB2290 W 20000623

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000079038	ICM	D06P001-00
	ICS	D06P003-82; D06L003-10; A63B039-00

AB The dyed materials are prepared by treating fabric materials or felts or mixts. of different types of fibers or mixts. of wool and synthetic fibers with bleaching agents and dyeing the materials with dyes or fluorescent dyes or yellow fluorescent dyes. The colored fabric materials exhibit chroma value .gtoreq.100, lightness value .gtoreq.95, and reflectance value .gtoreq.120, and white fabric materials exhibit chroma value .ltoreq.14, lightness value .gtoreq.85, and reflectance value .gtoreq.100. The fabrics are especially useful for manufacture of tennis balls. A felt having the back surface comprising cotton and the face comprising wool and polyamide fibers with the filling comprising 60:40 blend of wool and polyamide fibers was treated with an aqueous solution containing 0.5 g/L Basopal NA (triethanolamine dodecylbenzenesulfonate) and 2% Lufibrol FW (mixture of tetrasodium ethylenediaminetetraacetate and disodium disulfite) for 5 min at 45.degree., dyed with an aqueous solution containing 1.6% (on fiber) Nylomine Flavin C-7G (yellow dye) for 30 min at 95.degree., and rinsed to give a felt exhibiting peak reflectance level 129.9, chroma value 113.4, hue 104.7, and lightness value 97.9.

ST wool polyamide blend felt dyeing sports ball manuf; tennis ball manuf wool polyamide blend felt dyeing; nylon 66 wool blend dyeing sports ball manuf; fluorescent dye wool polyamide blend dyeing sports ball manuf

IT Polyamide fibers, uses
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(66; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)

IT Polyamide fibers, uses
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(blends with wool, felts; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)

IT Bleaching agents
(chelating agent-reducing agent mixts.; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)

IT Textiles
(cotton, laminates with polyamide-wool fabrics, felts; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)

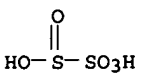
IT Bleaching
Dyeing
Felts
Fluorescent dyes
Textiles
(dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with **fluorescent** dyes for manufacture of sports balls)

IT Synthetic polymeric fibers, uses
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)

IT Polyamides, uses
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fiber; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
IT Reducing agents
(mixts. with chelating agents, bleaching agents; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
IT **Chelating agents**
(mixts. with reducing agents, bleaching agents; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
IT Textiles
(polyamide-wool; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
IT Sporting goods
(tennis balls; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
IT **189519-25-3**, Disodium disulfite-tetrasodium ethylenediaminetetraacetate mixture
RL: NUU (Other use, unclassified); USES (Uses)
(bleaching agent, Lufibrol FW; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
IT 32131-17-2, Nylon 66, uses
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(fiber; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
IT **64-02-8**, Tetrasodium ethylenediaminetetraacetate
RL: NUU (Other use, unclassified); USES (Uses)
(mixts. with disodium disulfite, bleaching agents; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
IT 7681-57-4, Disodium disulfite
RL: NUU (Other use, unclassified); USES (Uses)
(mixts. with tetrasodium ethylenediaminetetraacetate, bleaching agents; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
IT 27323-41-7, Basopal NA
RL: MOA (Modifier or additive use); USES (Uses)
(partitioning agent, Basopal NA; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Angstmann, D; INTERNATIONAL DYER 1998, V183(3), P11
(2) Arifoglu, M; US 5264001 A 1993 HCAPLUS
(3) Janes, R; US 5413333 A 1995
(4) Reincke, K; TEXTILVEREDLUNG 1999, V34(1/02), P26
(5) Schmidt, O; US 3912447 A 1975 HCAPLUS
IT **189519-25-3**, Disodium disulfite-tetrasodium ethylenediaminetetraacetate mixture
RL: NUU (Other use, unclassified); USES (Uses)
(bleaching agent, Lufibrol FW; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
RN 189519-25-3 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt, mixt. with disodium (disulfite) (9CI) (CA INDEX NAME)

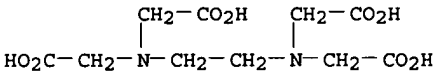
CM 1

CRN 7681-57-4
CMF H2 O5 S2 . 2 Na

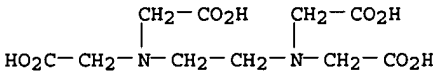


CM 2

CRN 64-02-8
CMF C10 H16 N2 O8 . 4 Na



IT **64-02-8**, Tetrasodium ethylenediaminetetraacetate
RL: NUU (Other use, unclassified); USES (Uses)
(mixts. with disodium disulfite, bleaching agents; dyed fabric materials with high visibility manufactured by bleaching fabric materials or felts and dyeing the materials with fluorescent dyes for manufacture of sports balls)
RN 64-02-8 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt (9CI) (CA INDEX NAME)



L41 ANSWER 6 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:227537 HCAPLUS
DN 132:262172
ED Entered STN: 07 Apr 2000
TI Use of neoangiogenesis markers for diagnosis and treatment of tumors
IN Krause, Werner; Muschick, Peter
PA Schering Aktiengesellschaft, Germany
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K049-00
ICS A61K047-48; A61K051-10
CC 8-9 (Radiation Biochemistry)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000018439	A2	20000406	WO 1999-EP7198	19990929 <--
WO 2000018439	A3	20000914		

W: AE, AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CR, CU, CZ, DM, EE, ES, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

DE 19845798	A1	20000413	DE 1998-19845798	19980929 <--
PRAI DE 1998-19845798	A	19980929 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000018439	ICM	A61K049-00
	ICS	A61K047-48; A61K051-10

AB Neoangiogenesis markers (i.e. antibodies or receptors for e.g. vascular endothelial growth factor, placenta growth factor, acidic or basic FGF, transforming growth factor .alpha. or .beta., hepatocyte growth factor, insulin-like growth factor I, glycoprotein B61, protein LERK-1, flk-1 receptor, etc.) or partial sequences thereof and antiangiogenic compds. and factors such as paclitaxel, endostatin, fibronectin peptide, and fumagillin are conjugated with active agents such as chemotherapeutic agents, radiosensitizers, photosensitizers, antibodies, oligonucleotides, radioactive metal complexes, etc., which may be bound to carriers, for treatment of tumors. Likewise, neoangiogenesis markers may be conjugated to diagnostic agents such as MRI, radiog., ultrasound, or near-IR contrast agents for tumor diagnosis. Thus, N',N',N''',N'''-tetrakis(tert-butoxycarboxymethyl)-N''-(hydroxycarboxymethyl)diethylenetriamine was converted to its N-hydroxysuccinimide ester, coupled to a Thy-1 antibody, complexed with 186Re, and injected i.v. into rabbits for detection of implanted VX2 tumors by scintigraphy with a gamma camera.

ST neoangiogenesis marker conjugate tumor diagnosis therapy; angiogenesis marker conjugate tumor diagnosis therapy; antitumor angiogenesis marker conjugate

IT Chemokines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(C-X-C, Gro-.beta., angiogenesis marker; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Proteins, specific or class
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(LERK-1, neoangiogenesis marker; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Imaging agents
(NMR contrast; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Antigens
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Thy-1, angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Tyrosine kinase receptors
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Tie, angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Imaging agents
(acoustic imaging contrast agents; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Diagnosis
(agents; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Hepatocyte growth factor
Interleukin 8
Monocyte chemoattractant protein-1
Platelet-derived growth factors
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(angiogenesis marker; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Thrombospondins
Tumor necrosis factors
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Growth factor receptors
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(angiogenic factor, conjugates; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Angiogenic factors
Angiogenic factors
Growth inhibitors, animal
Growth inhibitors, animal
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(angiogenic growth-inhibiting factors, conjugates; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Diagnosis
(cancer; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Dendritic polymers
Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carriers, conjugates with neoangiogenesis markers and antiangiogenic agents; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Shark
(cartilage extract from; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Carbohydrates, biological studies
Oligonucleotides
Peptides, biological studies
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates with neoangiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Porphyrins
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates, with angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Imaging agents
(contrast, angiog.; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Imaging agents
(contrast, radiog.; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Neoplasm
(diagnosis; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Auger process
(electron emission, sources, use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT X-ray
(emitters, use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Macrolides
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(epothilones, angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Immunoglobulins
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(fragments, conjugates with neoangiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Vascular endothelial growth factor receptors
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene KDR, angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Growth factor receptors
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(gene eck, gene eck, conjugates; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Growth factors, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(inhibitors, conjugates with neoangiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Cytokines
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(interferon-inducible IP-10, angiogenesis marker; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT IR radiation
(near-IR, imaging agents; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Angiogenesis
(neovascularization; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT **Chelates**
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of radioelements; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Cartilage
(of shark, extract of; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Fibronectins
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(peptides, angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Placental hormones
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(placenta-derived mitogenic factors, angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Proliferation inhibition
(proliferation inhibitors; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Angiogenic factors
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(receptors, conjugates; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Antibodies
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(to angiogenic factors, conjugates; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Cytotoxic agents
(tyrphostins, conjugates with angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Antitumor agents
Coupling agents
Cytotoxic agents
Fluorescent substances
Phosphorescent substances
Photosensitizers (pharmaceutical)
Radiosensitizers, biological
Scintigraphic agents
(use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Radionuclides, biological studies
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Transforming growth factors
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(.alpha.-, angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT Transforming growth factors
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic

use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(.beta.-, angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 14133-76-7, Technetium-99, biological studies
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Thy-1 antibody labeled with metastable; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 362-07-2, 2-Methoxyestradiol 446-72-0, Genistein 9002-62-4D, Prolactin, 16-kDa fragment, biological studies 9030-23-3 23110-15-8, Fumagillin 33069-62-4, Paclitaxel 37270-94-3, Blood platelet factor 4 67763-96-6, Insulin-like growth factor I 83869-56-1, GM-CSF 86090-08-6, Angiostatin 106096-92-8, Acidic FGF 106096-93-9, Basic FGF 124861-55-8, TIMP-2 127464-60-2, Vascular endothelial growth factor A 140208-23-7 140208-24-8, TIMP-1 142243-03-6 143011-72-7, G-CSF 145809-21-8, TIMP-3 186207-03-4, TIMP-4 187888-07-9, Endostatin 188417-84-7, Vascular endothelial growth factor C 192662-83-2, Vascular endothelial growth factor B 193363-12-1, Vascular endothelial growth factor D 194368-66-6, Angiopoietin 2
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(angiogenesis marker; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 33069-62-4D, Paclitaxel, derivs.
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 59-30-3, Folic acid, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antagonists, conjugates with angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 178698-85-6 192635-97-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(conjugation with Thy-1 antibody; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT **208757-54-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(conjugation with Thy-1 antibody; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 12585-85-2, Positron
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(emitters; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 9015-82-1
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors, conjugates with angiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 80449-02-1, Protein tyrosine kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors, conjugates with neoangiogenesis markers; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 9015-68-3D, Asparaginase, conjugates with angiogenesis markers
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(of Erwinia; use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 39400-71-0DP, conjugate with Thy-1 antibody 124914-64-3DP, conjugate with Thy-1 antibody 263260-07-7DP, conjugate with Thy-1 antibody
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT 50-18-0D, Cyclophosphamide, conjugates with angiogenesis markers 50-28-2D, Estradiol, conjugates with angiogenesis markers 50-44-2D, conjugates with angiogenesis markers 50-89-5D, Thymidine, conjugates with angiogenesis markers, biological studies 51-21-8D, 5-Fluorouracil, conjugates with angiogenesis markers 54-42-2D, Iododeoxyuridine,

conjugates with angiogenesis markers 59-05-2D, Methotrexate, conjugates with angiogenesis markers 59-14-3D, Bromodeoxyuridine, conjugates with angiogenesis markers 64-86-8D, Colchicine, conjugates with angiogenesis markers 117-39-5D, Quercetin, conjugates with angiogenesis markers 123-39-7D, N-Methylformamide, conjugates with angiogenesis markers 145-63-1D, Suramin, conjugates with angiogenesis markers 147-94-4D, Cytarabine, conjugates with angiogenesis markers 148-82-3D, Melphalan, conjugates with angiogenesis markers 154-42-7D, 6-Thioguanine, conjugates with angiogenesis markers 320-67-2D, Azacytidine, conjugates with angiogenesis markers 459-86-9D, Mitoguazone, conjugates with angiogenesis markers 512-64-1D, Echinomycin, conjugates with angiogenesis markers 528-74-5D, Dichloromethotrexate, conjugates with angiogenesis markers 645-05-6D, Hexamethylmelamine, conjugates with angiogenesis markers 865-21-4D, Vinblastine, conjugates with angiogenesis markers 2700-22-3D, Benzylidenemalononitrile, conjugates with angiogenesis markers 3073-59-4D, N,N'-Hexamethylenebisacetamide, conjugates with angiogenesis markers 3375-50-6D, 2-Mercaptoethanesulfonic acid, conjugates with angiogenesis markers 3778-73-2D, Ifosfamide, conjugates with angiogenesis markers 4005-51-0D, 2-Amino-1,3,4-thiadiazole, conjugates with angiogenesis markers 7439-88-5D, Iridium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7439-89-6D, Iron, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7439-92-1D, Lead, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7439-94-3D, Lutetium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7439-96-5D, Manganese, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7439-97-6D, Mercury, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-05-3D, Palladium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-06-4D, Platinum, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-12-2D, Promethium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-15-5D, Rhenium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-16-6D, Rhodium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-18-8D, Ruthenium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-19-9D, Samarium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-20-2D, Scandium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-22-4D, Silver, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-26-8D, Technetium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-27-9D, Terbium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-31-5D, Tin, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-36-0D, Antimony, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-38-2D, Arsenic, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-39-3D, Barium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-44-0D, Carbon, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-47-3D, Chromium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-48-4D, Cobalt, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-50-8D, Copper, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-54-2D, Gadolinium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-55-3D, Gallium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-57-5D, Gold, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-60-0D, Holmium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-65-5D, Yttrium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-68-8D, Astatine, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-69-9D, Bismuth, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7440-74-6D, Indium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7481-89-2D, Dideoxycytidine, conjugates with angiogenesis markers 7553-56-2D, Iodine, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7723-14-0D, Phosphorus, radioisotopes, complexes, conjugates with neoangiogenesis

markers, biological studies 7726-95-6D, Bromine, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7727-37-9D, Nitrogen, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7782-41-4D, Fluorine, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7782-44-7D, Oxygen, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 7782-49-2D, Selenium, radioisotopes, complexes, conjugates with neoangiogenesis markers, biological studies 10098-91-6D, Yttrium-90, chelates, conjugates with angiogenesis markers, biological studies 10318-26-0D, Dibromodulcitol, conjugates with angiogenesis markers 11056-06-7D, Bleomycin, conjugates with angiogenesis markers 13494-90-1D, Gallium nitrate, conjugates with angiogenesis markers 13551-87-6D, Misonidazole, conjugates with angiogenesis markers 13909-02-9D, 1-(2-Chloroethyl)-3-(2,6-dioxo-3-piperidyl)-1-nitrosourea, conjugates with angiogenesis markers 13909-09-6D, Semustine, conjugates with angiogenesis markers 14378-26-8D, Rhenium-188, chelates, conjugates with angiogenesis markers, biological studies 14769-73-4D, Levamisole, conjugates with angiogenesis markers 15663-27-1D, Cisplatin, conjugates with angiogenesis markers 15750-15-9D, Indium-111, chelates, conjugates with angiogenesis markers, biological studies 20537-88-6D, Ethiofos, conjugates with angiogenesis markers 22668-01-5D, conjugates with angiogenesis markers 23205-42-7D, 3-Deazauridine, conjugates with angiogenesis markers 23214-92-8D, Doxorubicin, conjugates with angiogenesis markers 23288-49-5D, Probucol, conjugates with angiogenesis markers 23491-44-3D, Pibenzimol, conjugates with angiogenesis markers 24584-09-6D, ICRF 187, conjugates with angiogenesis markers 26833-87-4D, Homoharringtonine, conjugates with angiogenesis markers 28656-91-9D, Aeroplysinin-1, conjugates with angiogenesis markers 29767-20-2D, Teniposide, conjugates with angiogenesis markers 31698-14-3D, Cyclocytidine, conjugates with angiogenesis markers 32954-58-8D, Ipomeanol, conjugates with angiogenesis markers 36877-68-6D, Nitroimidazole, conjugates with angiogenesis markers 38077-12-2D, conjugates with angiogenesis markers 41575-94-4D, Carboplatin, conjugates with angiogenesis markers 41992-23-8D, Spirogermanium, conjugates with angiogenesis markers 42228-92-2D, Acivicin, conjugates with angiogenesis markers 51264-14-3D, Amsacrine, conjugates with angiogenesis markers 51321-79-0D, PALA, conjugates with angiogenesis markers 52128-35-5D, Trimetrexate, conjugates with angiogenesis markers 53910-25-1D, Pentostatin, conjugates with angiogenesis markers 54749-90-5D, Chlorozotocin, conjugates with angiogenesis markers 56605-16-4D, Spiromustine, conjugates with angiogenesis markers 57576-44-0D, Aclarubicin, conjugates with angiogenesis markers 57998-68-2D, Aziridinylbenzoquinone, conjugates with angiogenesis markers 59653-73-5D, Teroxirone, conjugates with angiogenesis markers 60084-10-8D, Tiazofurin, conjugates with angiogenesis markers 61966-08-3D, Triciribine phosphate, conjugates with angiogenesis markers 62488-57-7D, conjugates with angiogenesis markers 62928-11-4D, Iproplatin, conjugates with angiogenesis markers 63521-85-7D, 4'-Deoxydoxorubicin, conjugates with angiogenesis markers 65271-80-9D, Mitoxantrone, conjugates with angiogenesis markers 65886-71-7D, Fazarabine, conjugates with angiogenesis markers 69408-81-7D, Amonafide, conjugates with angiogenesis markers 70563-58-5D, Herbimycin A, conjugates with angiogenesis markers 71628-96-1D, Menogaril, conjugates with angiogenesis markers 75607-67-9D, Fludarabine phosphate, conjugates with angiogenesis markers 77327-05-0D, Didemnin B, conjugates with angiogenesis markers 79152-85-5D, Acodazole, conjugates with angiogenesis markers 79902-63-9D, Simvastatin, conjugates with angiogenesis markers 81424-67-1D, Caracemide, conjugates with angiogenesis markers 87626-55-9D, Flavone-8-acetic acid, conjugates with angiogenesis markers 89149-10-0D, Deoxyspergualin, conjugates with angiogenesis markers 91441-23-5D, Oxantrazole, conjugates with angiogenesis markers 97534-21-9D, Merbarone, conjugates with angiogenesis markers 99331-25-6D, Triazolopyrimidine, derivs., conjugates with angiogenesis markers 100827-28-9D, Erbstatin, conjugates with angiogenesis markers 108736-35-2D, Angiopeptin, conjugates with angiogenesis markers 125697-92-9D, Lavendustin A, conjugates with angiogenesis markers 208252-77-1D, technetium-99 complexes, conjugate with Thy-1 antibody and cascade polymer 263260-08-8D, conjugate with Thy-1 antibody
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(use of neoangiogenesis markers for diagnosis and treatment of tumors)

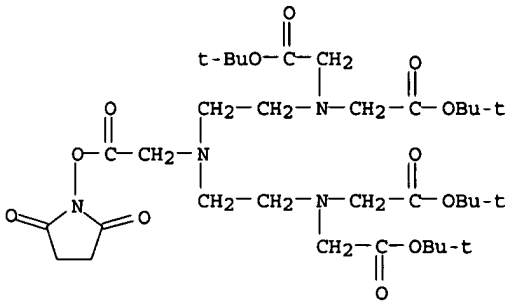
IT 6066-82-6, N-Hydroxysuccinimide **174267-71-1**
RL: RCT (Reactant); RACT (Reactant or reagent)

(use of neoangiogenesis markers for diagnosis and treatment of tumors)

IT **67-43-6DP**, conjugate with Thy-1 antibody
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(use of neoangiogenesis markers for diagnosis and treatment of tumors)

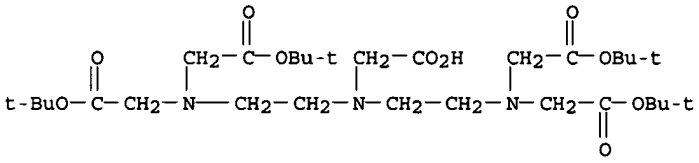
IT **208757-54-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(conjugation with Thy-1 antibody; use of neoangiogenesis markers for diagnosis and treatment of tumors)

RN 208757-54-4 HCAPLUS
CN 3-Oxa-6,9,12-triazatetradecan-14-oic acid, 6,12-bis[2-(1,1-dimethylethoxy)-2-oxoethyl]-9-[2-[(2,5-dioxo-1-pyrrolidinyl)oxy]-2-oxoethyl]-2,2-dimethyl-4-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



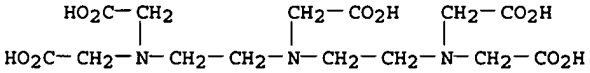
IT **174267-71-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(use of neoangiogenesis markers for diagnosis and treatment of tumors)

RN 174267-71-1 HCAPLUS
CN 3-Oxa-6,9,12-triazatetradecan-14-oic acid, 9-(carboxymethyl)-6,12-bis[2-(1,1-dimethylethoxy)-2-oxoethyl]-2,2-dimethyl-4-oxo-, 14-(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



IT **67-43-6DP**, conjugate with Thy-1 antibody
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(use of neoangiogenesis markers for diagnosis and treatment of tumors)

RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 7 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:34852 HCAPLUS
DN 132:102050
ED Entered STN: 14 Jan 2000
TI Preparation of novel fluorescent lanthanide chelates for use in bioaffinity assays
IN Chan, George Wai-Kin; Hertzberg, Robert P.
PA SmithKline Beecham Corporation, USA
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English

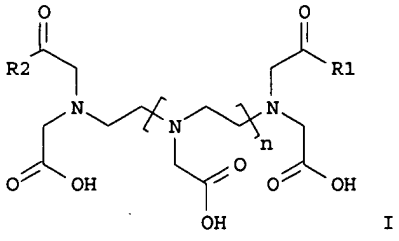
IC ICM C07C229-42
ICS C07C229-76; C07D219-04; C07D311-88; C07D491-052
CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 9, 23
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000001663	A1	20000113	WO 1999-US15366	19990707 <--
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2336904	AA	20000113	CA 1999-2336904	19990707 <--
	EP 1095011	A1	20010502	EP 1999-932334	19990707 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002519404	T2	20020702	JP 2000-558068	19990707 <--
	US 6740756	B1	20040525	US 2001-720965	20010620 <--
PRAI	US 1998-91944P	P	19980707 <--		
	WO 1999-US15366	W	19990707 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000001663	ICM	C07C229-42
	ICS	C07C229-76; C07D219-04; C07D311-88; C07D491-052

GI



I

AB The present invention provides complexing agents of Formula (I) which contain novel photosensitizers and produce long-lived fluorescence for use in bioaffinity assays, especially HTRF (homogeneous time-resolved fluorescence) assays. Thus, 3AAP-DTPA-4APEA (I; R1 = NH-C6H4-3-COCH3, R2 = NHCH2CH2-C6H4-4-NH2) was prepared and fluorescence lifetimes of its Eu(III) and Tb(III) chelates measured.

ST rare earth chelate fluorescence agent prepn bioassay; fluorescent probe bioassay rare earth DTPA chelate

IT Rare earth complexes
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(chelates; preparation of lanthanide chelates as fluorescence agents for use in homogeneous time-resolved fluorescence assays)

IT Immunoassay
(fluorescence, time-resolved; preparation of lanthanide chelates as fluorescence agents for use in homogeneous time-resolved fluorescence assays)

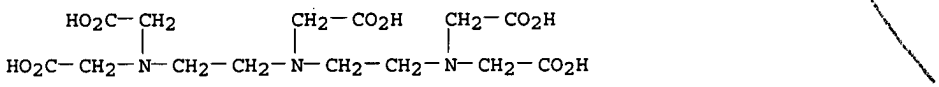
IT Allophycocyanins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(organic dyes with lanthanide chelate fluorescence agents for use in homogeneous time-resolved fluorescence assays)

IT **Chelating agents**
Fluorescence
(preparation of lanthanide chelates as fluorescence agents for use in homogeneous time-resolved fluorescence assays)

IT DNA
Peptides, analysis
Proteins, general, analysis
RNA
RL: ANT (Analyte); ANST (Analytical study)
(preparation of lanthanide chelates as fluorescence agents for use in homogeneous time-resolved fluorescence assays)

IT **Fluorescent dyes**
(rhodamine; organic dyes with lanthanide chelate **fluorescence** agents for use in homogeneous time-resolved **fluorescence** assays)

IT Fluorometry
(time-resolved; preparation of lanthanide chelates as fluorescence agents for use in homogeneous time-resolved fluorescence assays)
IT 144377-05-9
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(organic dyes with lanthanide chelate fluorescence agents for use in homogeneous time-resolved fluorescence assays)
IT 191661-01-5P 254759-79-0P 254759-80-3P 254759-81-4P 254759-82-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation as chelating agent for preparation of lanthanide chelates as fluorescence agents for use in homogeneous time-resolved fluorescence assays)
IT 254759-62-1P 254759-63-2P 254759-64-3P 254759-65-4P 254759-66-5P
254759-67-6P 254759-68-7P 254759-69-8P 254759-70-1P 254759-71-2P
254759-72-3P 254759-73-4P 254759-74-5P 254759-75-6P 254759-76-7P
254759-77-8P 254759-78-9P
RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(preparation of lanthanide chelates as fluorescence agents for use in homogeneous time-resolved fluorescence assays)
IT 7429-91-6P, Dysprosium, preparation 7440-19-9P, Samarium, preparation
7440-27-9P, Terbium, preparation 7440-53-1P, Europium, preparation
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(preparation of lanthanide chelates as fluorescence agents for use in homogeneous time-resolved fluorescence assays)
IT **67-43-6**, DTPA 99-03-6 1137-41-3, 4-Aminobenzophenone
13472-00-9 254759-83-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of lanthanide chelates as fluorescence agents for use in homogeneous time-resolved fluorescence assays)
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Chen; Bioconjugate Chem, Caplus 1999:79347 1999, V10(2), P311 HCAPLUS
(2) Gong; Chem Res Chin Univ, Caplus 1999:130288 1998, V14(4), P359 HCAPLUS
(3) Gong; Zhongguo Xitu Xuebao, Caplus 1998:800284 1997, V15(4), P289 HCAPLUS
(4) LI; Bioconjugate Chem, Caplus 1997:154993 1997, V8(2), P127 HCAPLUS
(5) Phimphivong; Bioconjugate Chem, Caplus 1998:269349 1998, V9(3), P350 HCAPLUS
IT **67-43-6**, DTPA
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of lanthanide chelates as fluorescence agents for use in homogeneous time-resolved fluorescence assays)
RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 8 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:753373 HCAPLUS
DN 132:1807
ED Entered STN: 26 Nov 1999
TI A scintillation proximity assay for the detection of peptidoglycan synthesis
IN Desousa, Sunita; Prahlad, Dwarakanath
PA Astra Aktiebolag, Swed.
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English
IC C12Q001-48; C12M001-34
CC 9-8 (Biochemical Methods)
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9960155	A1	19991125	WO 1999-SE749	19990504 <--

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,

MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2332796	AA	19991125	CA 1999-2332796	19990504	<--
AU 9944029	A1	19991206	AU 1999-44029	19990504	<--
AU 739994	B2	20011025			
EP 1076719	A1	20010221	EP 1999-927032	19990504	<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2002515260	T2	20020528	JP 2000-549761	19990504	<--
NZ 507722	A	20030530	NZ 1999-507722	19990504	<--
PRAI IN 1998-MA1019	A	19980515	<--		
SE 1998-2210	A	19980622	<--		
WO 1999-SE749	W	19990504	<--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9960155	IC	C12Q001-48IC C12M001-34

AB The invention provides a scintillation proximity assay for detecting peptidoglycan synthesis. The assay is especially suitable for high throughput screening of compds. affecting peptidoglycan synthesis.

ST scintillation proximity assay detection peptidoglycan synthesis

IT **Chelating agents**
(Divalent metal ion; a scintillation proximity assay for detection of peptidoglycan synthesis)

IT Radiochemical analysis
(Scintillation proximity assay; a scintillation proximity assay for detection of peptidoglycan synthesis)

IT Bacteria (Eubacteria)
Cell membrane
Drug screening
Escherichia coli
Fluorescent substances
Synthesis
(a scintillation proximity assay for detection of peptidoglycan synthesis)

IT Peptidoglycans
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)
(a scintillation proximity assay for detection of peptidoglycan synthesis)

IT Transport proteins
RL: CAT (Catalyst use); USES (Uses)
(a scintillation proximity assay for detection of peptidoglycan synthesis)

IT Agglutinins and Lectins
RL: NUU (Other use, unclassified); USES (Uses)
(a scintillation proximity assay for detection of peptidoglycan synthesis)

IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antagonists; a scintillation proximity assay for detection of peptidoglycan synthesis)

IT Cations
(divalent; a scintillation proximity assay for detection of peptidoglycan synthesis)

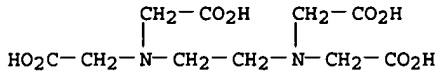
IT Wheat
(germ, agglutinin; a scintillation proximity assay for detection of peptidoglycan synthesis)

IT Peptides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(pentapeptides, UDP-N-acetylmuramyl; a scintillation proximity assay for detection of peptidoglycan synthesis)

IT 9033-07-2, Transglycosylase 9047-61-4, Transferase 9059-29-4, Transpeptidase 68858-66-2, Pyrophosphorylase
RL: CAT (Catalyst use); USES (Uses)
(a scintillation proximity assay for detection of peptidoglycan synthesis)

IT **60-00-4**, uses
RL: NUU (Other use, unclassified); USES (Uses)
(a scintillation proximity assay for detection of peptidoglycan synthesis)

IT 528-04-1D, radiolabeled 25126-51-6, Undecaprenyl phosphate 251294-78-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(a scintillation proximity assay for detection of peptidoglycan synthesis)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Amersham International PLC; WO 9426413 A1 1994 HCAPLUS
(2) Cook, N; Drug discovery today 1996, V1(7), P287 HCAPLUS
IT **60-00-4**, uses
RL: NUU (Other use, unclassified); USES (Uses)
(a scintillation proximity assay for detection of peptidoglycan synthesis)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 9 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:487473 HCAPLUS
DN 131:143509
ED Entered STN: 06 Aug 1999
TI Assessing risk for integrin antagonist/agonist mediated diseases
IN Seiffert, Dietmar A.; Billheimer, Jeffrey T.; Breth, Leah A.; Burn, Timothy C.; Dicker, Ira B.; George, Henry J.; Hollis, Jeannine M.; Hollis, Gregory F.; Kochie, Jennifer E.; O'Neil, Karyn T.
PA Du Pont Pharmaceuticals Company, USA
SO PCT Int. Appl., 107 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G01N033-68
ICS G01N033-566; C07K016-18; C12N005-18; C12N015-13
CC 15-1 (Immunochemistry)
Section cross-reference(s): 1, 14, 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9938014	A1	19990729	WO 1999-US1640	19990127	<--
	W: AU, BR, CA, CN, CZ, EE, HU, IL, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, UA, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
	US 2002081624	A1	20020627	US 1999-237061	19990126	<--
	US 6623981	B2	20030923			
	CA 2317704	AA	19990729	CA 1999-2317704	19990127	<--
	AU 9923441	A1	19990809	AU 1999-23441	19990127	<--
	EP 1051625	A1	20001115	EP 1999-903415	19990127	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI					
	JP 2002501201	T2	20020115	JP 2000-528871	19990127	<--
PRAI	US 1998-72733P	P	19980127	<--		
	WO 1999-US1640	W	19990127	<--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9938014	ICM	G01N033-68
	ICS	G01N033-566; C07K016-18; C12N005-18; C12N015-13

AB This invention relates to the detection of patients at risk for developing integrin antagonist/agonist mediated disease states. This invention also relates to assays useful for the detection in a patient bodily fluid sample of drug-dependent antibodies (DDABs) that bind to integrins in the presence of an integrin agonist and/or antagonist, and to procedures for identifying integrin antagonists/agonists that are less prone to elicit integrin antagonist/agonist mediated disease states. This invention also relates to procedures which increase the recovery of integrin-directed antibodies in body fluids, resulting in an increased sensitivity and specificity of DDAB detection assays and to procedures for treating blood samples, which dissociate antibodies to GPIIb/IIIa from the platelet surface, thereby increasing the recovery from the platelet supernatant. This invention also relates to the use of different GPIIb/IIIa prepns. to identify patients at risk for early-onset thrombocytopenia upon treatment with GPIIb/IIIa antagonist/agonists, thereby increasing the specificity of

antibody detection. Plasma samples from a patient who developed a thrombocytopenic episode while under therapy with 2(S)-[(n-butoxycarbonyl)amino]-3-[[[3-[4-(aminoiminomethyl)phenyl]isoxazolin-5(R)-yl]methylcarbonyl]amino]propionic acid and from American Red Cross donors were analyzed for the presence of DDABs using an ELISA with microtiter wells coated with purified GPIIb/IIIa.

ST antibody integrin antagonist agonist disease assay; glycoprotein IIb IIIa thrombocytopenia risk assessment; ELISA drug dependent integrin antibody blood plasma; immunoassay drug dependent integrin antibody blood plasma

IT Immunoglobulins
RL: PRP (Properties)
(G1, drug-dependent antibodies; assessing risk for integrin antagonist/agonist mediated diseases)

IT Immunoglobulins
RL: PRP (Properties)
(G3, drug-dependent antibodies; assessing risk for integrin antagonist/agonist mediated diseases)

IT Affinity chromatography
(RGD, glycoprotein GPIIb/IIIa purification by, antibody binding in relation to; assessing risk for integrin antagonist/agonist mediated diseases)

IT **Fluorescent substances**
(anti-human antibodies labeled with; assessing risk for integrin antagonist/agonist mediated diseases)

IT Integrins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(antibody to, detection of; assessing risk for integrin antagonist/agonist mediated diseases)

IT Diagnosis
Immunoassay
Risk assessment
(assessing risk for integrin antagonist/agonist mediated diseases)

IT Antibodies
RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chimeric; assessing risk for integrin antagonist/agonist mediated diseases)

IT Integrins
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(complexes with integrin antagonist/agonist, detection of antibodies to; assessing risk for integrin antagonist/agonist mediated diseases)

IT Enzymes, biological studies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates, with anti-human antibodies; assessing risk for integrin antagonist/agonist mediated diseases)

IT Antibodies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates, with enzyme or fluorescent label; assessing risk for integrin antagonist/agonist mediated diseases)

IT Immunoassay
(enzyme-linked immunosorbent assay, drug-dependent antibodies determination by; assessing risk for integrin antagonist/agonist mediated diseases)

IT Genetic vectors
(for chimeric antibodies; assessing risk for integrin antagonist/agonist mediated diseases)

IT **Chelating agents**
(for dissociating antibodies from cells; assessing risk for integrin antagonist/agonist mediated diseases)

IT Chimeric gene
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(for murine anti-human integrin .alpha.IIb.beta.3 monoclonal antibody variable regions and human Ig constant regions; assessing risk for integrin antagonist/agonist mediated diseases)

IT Gene, animal
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(for preparing chimeric antibodies; assessing risk for integrin antagonist/agonist mediated diseases)

IT Immunoglobulins
RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);

THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fusion products; assessing risk for integrin antagonist/agonist mediated diseases)

IT Platelet (blood)
(glycoprotein GPIIb/IIIa purification from and drug-dependent antibodies distribution to; assessing risk for integrin antagonist/agonist mediated diseases)

IT Test kits
(immobilized integrin in; assessing risk for integrin antagonist/agonist mediated diseases)

IT Integrins
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); FMU (Formation, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process); USES (Uses)
(immobilized; assessing risk for integrin antagonist/agonist mediated diseases)

IT Animal cell
(mammalian, chelating agent for dissociating antibodies from; assessing risk for integrin antagonist/agonist mediated diseases)

IT Antibodies
RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process)
(monoclonal, to integrin complex with antagonist/agonist; assessing risk for integrin antagonist/agonist mediated diseases)

IT cDNA sequences
(of anti- human integrin .alpha.IIb.beta.3 monoclonal antibody heavy and light chains of mouse; assessing risk for integrin antagonist/agonist mediated diseases)

IT Immobilization, biochemical
(of integrin, in antibody detection; assessing risk for integrin antagonist/agonist mediated diseases)

IT Molecular cloning
(of murine anti-human integrin .alpha.IIb.beta.3 monoclonal antibody and human Ig constant regions; assessing risk for integrin antagonist/agonist mediated diseases)

IT Thrombin receptors
RL: MSC (Miscellaneous)
(peptide activating, drug-dependent antibodies recovery from platelets with; assessing risk for integrin antagonist/agonist mediated diseases)

IT Blood analysis
(plasma; assessing risk for integrin antagonist/agonist mediated diseases)

IT Hybridoma
(producing antibodies to integrin complex with antagonist/agonist; assessing risk for integrin antagonist/agonist mediated diseases)

IT Baculoviridae
(recombinant, for chimeric mouse-human anti-integrin .alpha.IIb.beta.3 antibody production in insect cells; assessing risk for integrin antagonist/agonist mediated diseases)

IT Antibodies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(secondary; assessing risk for integrin antagonist/agonist mediated diseases)

IT Absorption
(solid-phase, nonbound drug removal by; assessing risk for integrin antagonist/agonist mediated diseases)

IT Peptides, biological studies
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(thrombin receptor-activating, drug-dependent antibodies recovery from platelets with; assessing risk for integrin antagonist/agonist mediated diseases)

IT Platelet (blood)
(thrombocytopenia, risk of developing, after treatment with integrin antagonist/agonist; assessing risk for integrin antagonist/agonist mediated diseases)

IT Embolism
(thromboembolism, risk of developing, after treatment with integrin antagonist/agonist; assessing risk for integrin antagonist/agonist mediated diseases)

IT Antibodies

RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(to integrin complexes with integrin antagonist/agonist; assessing risk for integrin antagonist/agonist mediated diseases)

IT Immunoglobulins
RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(with constant region and variable region from different mammalian species; assessing risk for integrin antagonist/agonist mediated diseases)

IT Therapy
(with integrin antagonist/agonist, risk of developing disease after; assessing risk for integrin antagonist/agonist mediated diseases)

IT Integrins
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(.alpha.IIb.beta.3, antagonist/agonist for; assessing risk for integrin antagonist/agonist mediated diseases)

IT 99896-85-2
RL: NUU (Other use, unclassified); USES (Uses)
(affinity chromatog., glycoprotein GPIIb/IIIa purification by, antibody binding in relation to; assessing risk for integrin antagonist/agonist mediated diseases)

IT 163212-43-9 163212-43-9D, active metabolites 168157-33-3 168157-33-3D, active metabolites 170902-47-3 170902-52-0 185536-58-7 185536-58-7D, active metabolites
RL: ADV (Adverse effect, including toxicity); ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(as integrin antagonist/agonist, detection of antibodies to integrin bound with; assessing risk for integrin antagonist/agonist mediated diseases)

IT 170902-52-0D, active metabolites and complexes with integrin .alpha.IIb.beta.3
RL: ADV (Adverse effect, including toxicity); ARG (Analytical reagent use); ARU (Analytical role, unclassified); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(assessing risk for integrin antagonist/agonist mediated diseases)

IT 2321-07-5D, Fluorescein, conjugates with anti-human antibodies
9003-99-0D, Peroxidase, conjugates with anti-human antibodies
RL: ARG (Analytical reagent use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(assessing risk for integrin antagonist/agonist mediated diseases)

IT **60-00-4**, EDTA, biological studies
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(drug-dependent antibodies recovery from platelet surface with; assessing risk for integrin antagonist/agonist mediated diseases)

IT 234763-88-3P 234763-89-4P
RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; assessing risk for integrin antagonist/agonist mediated diseases)

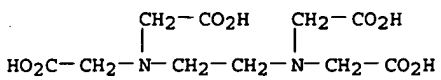
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Aiken, M; US 5256538 A 1993 HCAPLUS
(2) Aster, R; US 5585243 A 1996 HCAPLUS
(3) Bohumil, B; WO 9822821 A 1998 HCAPLUS
(4) Cines, D; AMERICAN HEART JOURNAL 1998, V135(5), Ps152 HCAPLUS
(5) Gen Hospital Corp; WO 9624063 A 1996 HCAPLUS
(6) Scripps Research Inst; WO 9214150 A 1992 HCAPLUS
(7) Scripps Research Inst; WO 9219760 A 1992 HCAPLUS

IT **60-00-4**, EDTA, biological studies
RL: ARU (Analytical role, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(drug-dependent antibodies recovery from platelet surface with; assessing risk for integrin antagonist/agonist mediated diseases)

RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 10 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:419828 HCAPLUS
DN 131:41586
ED Entered STN: 08 Jul 1999
TI Photoactivation of endogenous porphyrins for treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment
IN Mclean, David I.; Macaulay, Calum; Bissonnette, Robert; Zeng, Haishan; Lui, Harvey
PA The University of British Columbia, Can.
SO Can. Pat. Appl., 43 pp.
CODEN: CPXXEB
DT Patent
LA English
IC ICM A61B005-00
ICS A61K049-00; A61N005-06
CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 9
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CA 2238601	AA	19981127	CA 1998-2238601	19980525 <--
PRAI CA 1997-2206203		19970527 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
CA 2238601	ICM	A61B005-00
	ICS	A61K049-00; A61N005-06

AB In one aspect, the invention provides a diagnostic method for identifying psoriatic plaques in which porphyrins, particularly protoporphyrin IX, are elevated as compared to normal skin and skin of patients with other dermatol. diseases, including other forms of psoriatic plaque. Psoriatic plaques with elevated porphyrin levels may be detected by fluorescence and spectral anal. Endogenous porphyrins in psoriatic plaques may be activated with visible light to treat psoriatic plaques having elevated porphyrin concns. Skin conditions may be optimized to increase the endogenous concentration of porphyrins in psoriatic plaques. A topical formulation may be applied to psoriatic plaques to optimize skin conditions such as pH, iron concentration, temperature, hydration, calcium concentration, oxygenation, elec. conductivity and estrogen concentration to increase the concentration of endogenous porphyrins. A 635 nm macrospectrophotometric emission peak was present in the plaques of 32 of 70 (46%) patients with psoriasis but not in normal skin. A 150 W lamp equipped with a 400 nm long pass filter was used for light treatment of a patient to affect treatment with visible light and minimize exposure to UV light. Treatment resulted in the diminishing of the 630-635 nm protoporphyrin IX peak in the plaque and significant clearing of psoriasis.
ST porphyrin fluorescence photoactivation psoriasis diagnosis treatment; visible light psoriasis treatment protoporphyrin IX
IT **Fluorescence**
(autofluorescence, of endogenous porphyrins; photoactivation of endogenous porphyrins for treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment)
IT Porphyrins
RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(endogenous; photoactivation of endogenous porphyrins for treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment)
IT pH
(in elevating endogenous porphyrin levels in psoriatic plaque; photoactivation of endogenous porphyrins for treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment)
IT **Chelating agents**
(iron, in topical composition for elevating endogenous porphyrin levels in psoriatic plaque; photoactivation of endogenous porphyrins for

treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment)

IT Diagnosis
Light
Psoriasis
(photoactivation of endogenous porphyrins for treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment)

IT Drug delivery systems
(topical, for elevating endogenous porphyrin levels in psoriatic plaque; photoactivation of endogenous porphyrins for treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment)

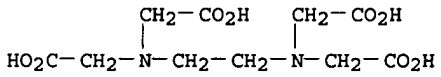
IT **60-00-4**, EDTA, biological studies 70-51-9, Desferrioxamine
115900-75-9, CP94
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(as iron chelator, in topical composition for elevating endogenous porphyrin levels in psoriatic plaque; photoactivation of endogenous porphyrins for treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment)

IT 7439-89-6, Iron, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(chelator, in topical composition for elevating endogenous porphyrin levels in psoriatic plaque; photoactivation of endogenous porphyrins for treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment)

IT 553-12-8, Protoporphyrin IX
RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses)
(photoactivation of endogenous porphyrins for treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment)

IT **60-00-4**, EDTA, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(as iron chelator, in topical composition for elevating endogenous porphyrin levels in psoriatic plaque; photoactivation of endogenous porphyrins for treatment of psoriasis and diagnosis of psoriasis susceptible to such treatment)

RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 11 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:387781 HCAPLUS
DN 131:56153
ED Entered STN: 23 Jun 1999
TI A method for using porphyrins as universal label.
IN Roelant, Chris
PA Packard Instrument B.V., Neth.
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G01N033-532
ICS C07D487-22; C09K011-07
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 6, 10, 13, 14
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11160313	A2	19990618	JP 1997-298608	19971030 <--
PRAI JP 1997-298608		19971030 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11160313	ICM	G01N033-532
	ICS	C07D487-22; C09K011-07

AB A method is described for using porphyrins or porphyrin derivs. as

universal label for targetted particles in various assays or quant. techniques without using crosslinking agents. In this method of detecting particular particles, porphyrin and particles to be detected are mixed without crosslinking agents long enough to ensure the binding. Then, the particles labeled with porphyrin are separated from non-bound porphyrin and detected. Particles to be labeled can be beads, microorganisms, cells or biochem. mols. The amount of particles labeled with porphyrins are determined by various methods including chemiluminescence, fluorescence or radioactivity measurement. The measured value is proportional to the amount of particles. This method can be applied to the studies on cell adhesion or viral infection.

ST porphyrin universal label particle cell virus

IT T cell (lymphocyte)
(CD4+; method for using porphyrins as universal label)

IT Animal cell line
(JURKAT; method for using porphyrins as universal label)

IT Proteins, general, analysis
RL: ANT (Analyte); ANST (Analytical study)
(blood; method for using porphyrins as universal label)

IT Organelle
(intracellular; method for using porphyrins as universal label)

IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(ligand-binding; method for using porphyrins as universal label)

IT Drugs
(metabolites; method for using porphyrins as universal label)

IT Animal cell
Animal cell line
Biochemical molecules
Buffers
Cell adhesion
Centrifugation
Chelating agents
Chemiluminescence spectroscopy
Crosslinking agents
Drugs
Filtration
Fluorescent probes
Fluorometry
Isotope indicators
Macrophage
Magnetic separation
Microorganism
Oxidizing agents
Particle size
Particles
Radiochemical analysis
Separation
Staphylococcus aureus
Test kits
Virus
(method for using porphyrins as universal label)

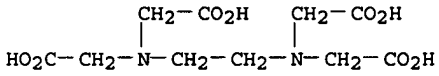
IT Antibodies
Antigens
Avidins
Enzymes, analysis
Growth factors, animal
Hormones, animal, analysis
Neurotransmitters
Nucleic acids
Nucleotides, analysis
Oligonucleotides
Peptides, analysis
Polynucleotides
Probes (nucleic acid)
RL: ANT (Analyte); ANST (Analytical study)
(method for using porphyrins as universal label)

IT Hydroperoxides
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method for using porphyrins as universal label)

IT Peroxides, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method for using porphyrins as universal label)

IT Radionuclides, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method for using porphyrins as universal label)

IT Group IIIA element compounds
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(perborates; method for using porphyrins as universal label)
IT Porphyrins
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(reaction products with iron; method for using porphyrins as universal label)
IT Liquid scintillation counting
(scintillation proximity assay; method for using porphyrins as universal label)
IT Antigens
RL: ANT (Analyte); ANST (Analytical study)
(surface; method for using porphyrins as universal label)
IT Infection
(viral; method for using porphyrins as universal label)
IT 57-88-5, Cholesterol, analysis 58-85-5, Biotin
RL: ANT (Analyte); ANST (Analytical study)
(method for using porphyrins as universal label)
IT 553-12-8, Protoporphyrin IX 1445-69-8, 2,3-Dihydro-1,4-phthalazinedione 7439-89-6D, Iron, reaction products with porphyrins, uses 10198-40-0, Cobalt-60, uses 13966-06-8, Tin-113, uses 13981-37-8, Nickel-63, uses 13981-38-9, Cobalt-58, uses 13981-43-6, Chlorine-36, uses 13981-50-5, Cobalt-57, uses 13982-39-3, Zinc-65, uses 14158-31-7, Iodine-125, uses 14276-65-4, Gadolinium-153, uses 14596-12-4, Iron-59, uses 14596-37-3, Phosphorus-32, uses 14681-59-5, Iron-55, uses 14762-75-5, Carbon-14, uses 15489-90-4, Hematin 15749-66-3, Phosphorus-33, uses 16009-13-5, Hemin
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method for using porphyrins as universal label)
IT **60-00-4**, EDTA, analysis 70-51-9, Desferrioxamine 77-86-1 3812-32-6, Carbonate, analysis 11129-12-7, Borate 14265-44-2, Phosphate, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(method for using porphyrins as universal label)
IT **60-00-4**, EDTA, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(method for using porphyrins as universal label)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



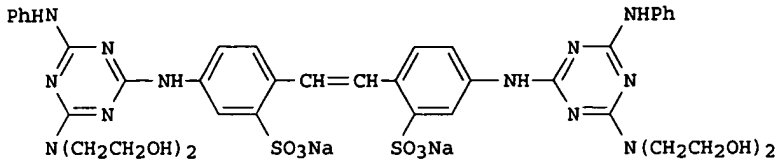
L41 ANSWER 12 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:316480 HCAPLUS
DN 130:326493
ED Entered STN: 24 May 1999
TI Whitening of paper by adding a chelating agent and/or fluorescent whitening agent to lignin-containing pulps
IN Nelson, Randall B.
PA Ciba Specialty Chemicals Corporation, USA
SO U.S., 14 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM D21H011-00
NCL 162158000
CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5902454	A	19990511	US 1996-766909	19961213 <--

PRAI US 1996-766909 19961213 <--
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5902454	ICM	D21H011-00
	NCL	162158000

OS MARPAT 130:326493
GI



I

AB The whiteness of paper made from a lignin-containing pulp (.gtoreq.5% lignin) is increased by (a) adding to an aqueous slurry of lignin-containing pulp, in the papermaking step, a chelating agent to decrease the content of salts of iron and other heavy metals to 100 ppm or less by weight, based on the dry weight of the pulp, and/or (b) adding to the aqueous slurry a fluorescent whitening agent. Thus, 0.48 parts 41% solution of diethylenetriaminepentaacetic acid and 0.78 parts liquid containing 12.5 weight% fluorescent whitening agent I are added, in sep. streams, to an aqueous slurry containing .apprx.1.1% deinked, recycled newspaper pulp (.apprx.200 ppm iron, .apprx.10-15% lignin), giving whiteness increase from 67 to 74, with 0.5-1.75 points attributable to the chelating agent and the remainder to I.

ST paper whitening lignin contg pulp; chelating agent pulp whitening; diethylenetriaminepentaacetic acid chelating agent pulp; fluorescent whitener pulp contg lignin; benzenesulfonic acid triazinylamino fluorescent whitener pulp

IT Heavy metals
RL: REM (Removal or disposal); PROC (Process)
(removal of; whitening of paper by adding a chelating agent and/or fluorescent whitening agent to lignin-containing pulps)

IT Cellulose pulp
Chelating agents
Fluorescent brighteners
Paper
(whitening of paper by adding a chelating agent and/or fluorescent whitening agent to lignin-containing pulps)

IT 51-17-2D, Benzimidazole, bis derivs. 81-83-4D, Naphthalimide, derivs. 91-64-5D, Coumarin, derivs. 620-81-5D, Oxanilide, derivs. 888-92-6D, 2-Styrylbenzoxazole, derivs. 1608-30-6D, derivs. 2039-68-1D, 4,4'-Diphenylstilbene, derivs. 2491-94-3D, derivs. 4061-32-9D, 4,4'-Distyrylbiphenyl, derivs. 4193-55-9 10307-62-7D, derivs. 14848-03-4D, derivs. 16143-15-0D, derivs. 16470-24-9 36118-45-3D, Pyrazoline, derivs. 40350-12-7D, derivs. 54243-77-5D, derivs. 83820-15-9D, derivs.
RL: NUU (Other use, unclassified); USES (Uses)
(fluorescent whitener; whitening of paper by adding a chelating agent and/or fluorescent whitening agent to lignin-containing pulps)

IT **60-00-4**, Ethylenediaminetetraacetic acid, uses **67-43-6**, Diethylenetriaminepentaacetic acid 139-13-9, Nitrilotriacetic acid 150-39-0, Hydroxyethylethylenediaminetriacetic acid
RL: NUU (Other use, unclassified); USES (Uses)
(metal chelation by; whitening of paper by adding a chelating agent and/or fluorescent whitening agent to lignin-containing pulps)

IT 7439-89-6, Iron, processes 9005-53-2, Lignin, processes
RL: REM (Removal or disposal); PROC (Process)
(removal of; whitening of paper by adding a chelating agent and/or fluorescent whitening agent to lignin-containing pulps)

IT 273-53-0D, Benzoxazole, bis derivs.
RL: NUU (Other use, unclassified); USES (Uses)
(whitening of paper by adding a chelating agent and/or fluorescent whitening agent to lignin-containing pulps)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

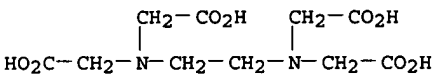
RE

(1) Davison; US 4093645 1978
(2) Davison; US 4216105 1980 HCAPLUS
(3) Fringeli; US 4339238 1982 HCAPLUS
(4) Heimburger; US 5248389 1993 HCAPLUS
(5) Leonhardt; US 5227022 1993 HCAPLUS
(6) Lindahl; US 4599138 1986 HCAPLUS
(7) Naddeo; US 5332471 1994 HCAPLUS
(8) Welkener; US 5266078 1993 HCAPLUS

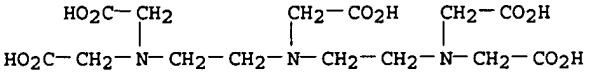
IT **60-00-4**, Ethylenediaminetetraacetic acid, uses **67-43-6**, Diethylenetriaminepentaacetic acid
RL: NUU (Other use, unclassified); USES (Uses)

(metal chelation by; whitening of paper by adding a chelating agent and/or fluorescent whitening agent to lignin-containing pulps)

RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 13 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:284310 HCAPLUS
DN 131:54893
ED Entered STN: 10 May 1999
TI Clinical applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States
AU Rosen, John F.
CS Division of Environmental Sciences, Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, NY, USA
SO Advances in Modern Environmental Toxicology (1998), 25(Hazardous Waste: Toxicology and Health Effects), 137-146
CODEN: AETODY; ISSN: 0276-5063
PB Princeton Scientific Publishing Co., Inc.
DT Journal
LA English
CC 4-1 (Toxicology)
Section cross-reference(s): 14
AB LXRF ests. of Pb (lead) in tibial cortical bone have yielded highly relevant clin. data relating to the efficacy of chelation therapy with CaNa2EDTA in lead poisoned children; diagnostic approach(es) to childhood lead poisoning; and evaluations of exposure in children, teenagers, and adults in lead-exposed and non-lead-exposed suburban communities. It is anticipated that KXRF and LXRF ests. of Pb in bone will yield new information concerning the epidemiol. of hypertension, osteoporosis, and the contribution of maternal Pb to the developing fetus.
ST clin X ray fluorescence bone lead; poisoning lead children LXRF USA; teenager child LXRF lead bone poisoning; adult children LXRF lead poisoning bone
IT Therapy
(EDTA, chelation; clin. applications of LXRF to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)
IT **X-ray fluorescence**
(L-line; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)
IT Hair
(arsenic; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)
IT Development, mammalian postnatal
(child; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)
IT Ecotoxicity
Environmental pollution
(clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and

adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT Bone
Environmental pollution
(lead; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT Erythrocyte
(protoporphyrin; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT **Chelation**
(therapy, EDTA; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT Bone
(tibia, cortex, lead; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT 7439-92-1, Lead, biological studies
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); ANST (Analytical study); BIOL (Biological study)
(blood; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT 7439-92-1, Lead, biological studies
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); POL (Pollutant); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT 553-12-8, Protoporphyrin
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(erythrocyte; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT 7440-38-2, Arsenic, biological studies
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); POL (Pollutant); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(hair; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT 7439-92-1, Lead, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(poisoning; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT 7439-92-1, Lead, occurrence
RL: POL (Pollutant); OCCU (Occurrence)
(pollution; clin. applications of L-line X-ray fluorescence to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT **60-00-4**, EDTA, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(to reduce lead burden; clin. applications of LXRF to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

IT 7439-92-1, Lead, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(toxicity; clin. applications of L-line X-ray fluorescence to estimate bone

lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD

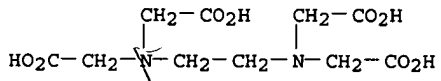
RE

(1) Barkla, C; Proc R Soc Lond Ser 1906, VA77, P247
(2) Fetterolf, D; Am J Ind Med 1986, V9, P221
(3) Greenberg, A; Arch Environ Heath 1986, V41, P69 HCAPLUS
(4) International Commission on Radiological Protection (ICRP); Recommendations of the International Commission on Radiological Protection 1991, Publication 60, P4
(5) Kalef-Ezra, J; Health Phys 1990, V58, P217 HCAPLUS
(6) Markowitz, M; Pediatrics 1993, V92, P265 MEDLINE
(7) National Academy of Sciences (NAS); Measuring Lead Exposure in Infants, Children and Other Sensitive Populations 1993
(8) Preiss, I; Advances in X-Ray Analysis 1995, V38, P606
(9) Rosen, J; Advances X-ray Anal 1995, P573 HCAPLUS
(10) Rosen, J; Am J Dis Child 1992, V146, P1278 MEDLINE
(11) Rosen, J; Environ Health Perspect 1991, V92, P271
(12) Rosen, J; Neurotoxicology 1991, V14, P211
(13) Rosen, J; Proc Nat Acad Sci (USA) 1993, V90, P2789 HCAPLUS
(14) Rosen, J; Proc Nat Acad Sci USA 1989, V65, P685
(15) Slatkin, D; Radiat Prot Dosimetry 1991, V37, P111 HCAPLUS
(16) Slatkin, D; Radiat Prot Dosimetry 1992, V43, P319
(17) Wielopolski, L; IEEE Trans Nuclear Science 1981, VNS-28, P114
(18) Wielopolski, L; Med Phys 1983, V10, P248 HCAPLUS
(19) Wielopolski, L; Med Phys 1989, V16, P521 HCAPLUS
(20) Wielopolski, L; The Toxicologist Abstract 1987, P77

IT **60-00-4**, EDTA, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(to reduce lead burden; clin. applications of LXRF to estimate bone lead values in lead-poisoned young children and in children, teenagers, and adults from lead-exposed and non-lead-exposed suburban communities in the United States)

RN 60-00-4 HCAPLUS

CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 14 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:156428 HCAPLUS

DN 130:210974

ED Entered STN: 10 Mar 1999

TI Method of whitening lignin-containing pulp during manufacture

IN Nelson, Randall Bruce; Jokinen, Olli Juhani; Rohringer, Peter

PA Ciba Specialty Chemicals Holding Inc., Switz.

SO Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW

DT Patent

LA English

IC ICM D21C009-00
ICS D21C009-10; D21H021-30

CC 43-6 (Cellulose, Lignin, Paper, and Other Wood Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 899373	A1	19990303	EP 1998-810809	19980819 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2245966	AA	19990228	CA 1998-2245966	19980826 <--
	ZA 9807782	A	19990301	ZA 1998-7782	19980827 <--
	AU 9881952	A1	19990311	AU 1998-81952	19980827 <--
	AU 739524	B2	20011018		
	CN 1211655	A	19990324	CN 1998-118493	19980827 <--
	BR 9803764	A	20020514	BR 1998-3764	19980827 <--
	JP 11124783	A2	19990511	JP 1998-242891	19980828 <--
PRAI	US 1997-919549	A	19970828 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

EP 899373	ICM	D21C009-00
	ICS	D21C009-10; D21H021-30
EP 899373	ECLA	D21C009/00B2D; D21C009/10H; D21H021/30 <--

OS MARPAT 130:210974

AB A process to increase the whiteness of a lignin-containing pulp comprises adding to an aqueous slurry comprising a lignin-containing pulp during pulp manufacture, a fluorescent whitening agent and optionally a chelating agent.

ST fluorescent whitening agent pulp; chelating agent pulp

IT Cellulose pulp
Fluorescent brighteners
(whitening lignin-containing pulp using fluorescent whitening agents)

IT **Chelating agents**
(whitening lignin-containing pulp using fluorescent whitening agents and chelating agents)

IT 4193-55-9, Tinopal HW
RL: TEM (Technical or engineered material use); USES (Uses)
(Tinopal HW; whitening lignin-containing pulp using fluorescent whitening agents)

IT 27344-41-8, Tinopal SK
RL: TEM (Technical or engineered material use); USES (Uses)
(Tinopal SK; whitening lignin-containing pulp using fluorescent whitening agents)

IT 9005-53-2, Lignin, uses
RL: MOA (Modifier or additive use); USES (Uses)
(whitening lignin-containing pulp using fluorescent whitening agents)

IT 13863-31-5 14848-03-4D, derivs. 16470-24-9 54243-77-5D, derivs. 133057-91-7
RL: TEM (Technical or engineered material use); USES (Uses)
(whitening lignin-containing pulp using fluorescent whitening agents)

IT **60-00-4**, uses **67-43-6**, Diethylenetriaminepentaacetic acid 139-13-9, Nitrilotriacetic acid 150-39-0, Hydroxyethylethylenediaminetriacetic acid
RL: TEM (Technical or engineered material use); USES (Uses)
(whitening lignin-containing pulp using fluorescent whitening agents and chelating agents)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

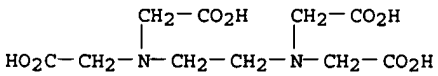
RE

(1) Ciba Geigy Ag; GB 2026054 A 1980 HCAPLUS
(2) Ciba Geigy Ag; EP 0835906 A 1998 HCAPLUS
(3) Klein; US 2924549 A 1960 HCAPLUS
(4) Mo Och Domsjoe Ab; EP 0280332 A 1988 HCAPLUS
(5) Nippon Kayaku Kk; JP 08074196 A 1996 HCAPLUS

IT **60-00-4**, uses **67-43-6**, Diethylenetriaminepentaacetic acid
RL: TEM (Technical or engineered material use); USES (Uses)
(whitening lignin-containing pulp using fluorescent whitening agents and chelating agents)

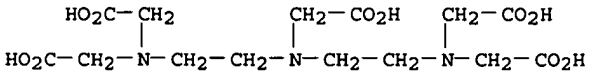
RN 60-00-4 HCAPLUS

CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



RN 67-43-6 HCAPLUS

CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 15 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:130288 HCAPLUS

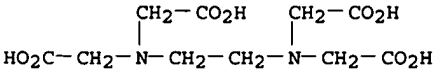
DN 130:287651

ED Entered STN: 01 Mar 1999

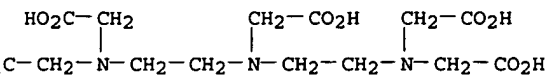
TI Stability constants and fluorescence of terbium(III) complexes with polyaminopolycarboxylates in aqueous solution

AU Gong, Meng-Lian; Wu, Wei-Ning; Shi, Hua-Hong; Lei, Heng-Yi; Meng, Jian-Xin; Yang, Yan-Sheng

CS Department of Chemistry, Zhongshan University, Canton, 510275, Peop. Rep. China
SO Chemical Research in Chinese Universities (1998), 14(4), 359-364
CODEN: CRCUED; ISSN: 1000-9213
PB Higher Education Press
DT Journal
LA English
CC 68-3 (Phase Equilibriums, Chemical Equilibriums, and Solutions)
Section cross-reference(s): 73
AB The stability consts. were determined of Tb(III) complexes with EDTA, DTPA and DTPA.cntdot.pAS, DTPA.cntdot.2pAS, DTPA.cntdot.pAB, EDTA.cntdot.pAS and EDTA.cntdot.pAB; here pAS and pAB represent the p-aminosalicylate and p-aminobenzoate groups, resp. The batch technique of pH potentiometric titration was used. The stepwise protonation consts. of the ligands and the stability consts. of their Tb3+ complexes were calculated with the program BEST. Introduction of p-aminosalicylate or p-aminobenzoate groups into EDTA or DTPA decreases the acidity. The results of potentiometric and fluorescence measurements are in a good accord. A replacement of EDTA with DTPA.bul.2pAS in EDTA-Tb complex solution led to the enhancement in Tb3+ sensitized luminescence. The effects of the ligands' structure on the stability and fluorescence of the complexes are discussed.
ST terbium ion polyaminocaboxylates aq soln complexation
IT Polyamides, processes
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(poly(amino acids), polyanions; stability consts. and fluorescence of terbium(III) complexes with polyaminopolycarboxylates in aqueous solution)
IT Acidity
Complexation
Fluorescence
Formation constant
Molecular structure-property relationship
Protonation
Substitution reaction, coordinative
(stability consts. and fluorescence of terbium(III) complexes with polyaminopolycarboxylates in aqueous solution)
IT 7440-27-9D, Terbium, complexes with DTPA and EDTA derivs., properties 15158-65-3 20910-00-3 122404-69-7D, terbium complexes 157342-62-6D, terbium complexes 157342-63-7D, terbium complexes 157342-64-8D, terbium complexes 192638-69-0D, terbium complexes
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); FORM (Formation, nonpreparative); PROC (Process)
(stability consts. and fluorescence of terbium(III) complexes with polyaminopolycarboxylates in aqueous solution)
IT **60-00-4**, EDTA, processes **67-43-6**, DTPA 22541-20-4, Terbium (3+, processes 122404-69-7 157342-62-6 157342-63-7 157342-64-8 192638-69-0
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(stability consts. and fluorescence of terbium(III) complexes with polyaminopolycarboxylates in aqueous solution)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Carvalho, J; Inorg Chem 1992, V31, P4065 HCAPLUS
(2) Delgado, R; Inorg Chem 1993, V32, P3320 HCAPLUS
(3) Frey, S; Inorg Chem 1994, V34, P3229
(4) Gong, M; J Rare Earths 1997, V15, P241
(5) Martel, A; J Determination and Use of Stability Constants 2nd edition 1992
(6) Schuarzenbach, G; Complexometric Titrations 1969
(7) Shi, H; Chinese Journal of Luminescence 1996, V17(3), P240
(8) Shi, H; J of Alloys & Compounds 1994, V207/208, P29
(9) Smith, R; Critical Siability Constants 1976
IT **60-00-4**, EDTA, processes **67-43-6**, DTPA
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(stability consts. and fluorescence of terbium(III) complexes with polyaminopolycarboxylates in aqueous solution)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 16 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:27671 HCAPLUS
DN 130:63352
ED Entered STN: 14 Jan 1999
TI Europium and terbium chelators for the time-resolved fluorometric assays
IN Diamandis, Eleftherios P.
PA Nordion International Inc., Can.
SO U.S., 18 pp., Cont.-in-part of U.S. 5,312,922.
CODEN: USXXAM
DT Patent
LA English
IC ICM G01N033-535
ICS G01N033-78; G01N033-545
NCL 435007910
CC 9-5 (Biochemical Methods)
Section cross-reference(s): 6, 73
FAN.CNT 2

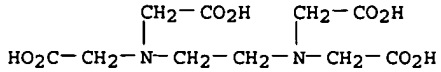
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5854008	A	19981229	US 1994-313300	19941221 <--
	US 5312922	A	19940517	US 1992-863746	19920406 <--
	WO 9320054	A1	19931014	WO 1993-CA153	19930406 <--
	W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
PRAI	US 1992-863746		19920406 <--		
	WO 1993-CA153		19930406 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5854008	ICM	G01N033-535
	ICS	G01N033-78; G01N033-545
	NCL	435007910

AB Fluorogenic chelators for Eu3+ and Tb3+ are provided. They form highly fluorescent complexes with Eu3+ and Tb3+. In all cases, the fluorescence observed was lanthanide-specific, long-lived and it was monitored by microsecond time-resolved fluorometry. The fluorogenic chelators could be quantified, in the presence of excess lanthanide, at levels <10-8 mol/L. Fluorogenic chelators can form ternary complexes with Eu3+ and Tb3+, in the presence of EDTA. The structures of the identified chelators is such that enzyme substrates can be used for enzyme-labeled time-resolved fluorometric immunoassays.
ST europium terbium chelator time resolved fluorometric assay immunoassay
IT Blood analysis
Blood serum
Chelating agents
Fluorescence
Immunoassay
(europium and terbium chelators for time-resolved fluorometric assays)
IT Enzymes, analysis
RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(europium and terbium chelators for time-resolved fluorometric assays)
IT Rare earth complexes
Rare earth metals, analysis
RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); PRP (Properties); ANST (Analytical study); USES (Uses)
(europium and terbium chelators for time-resolved fluorometric assays)
IT Fluorometry
(time-resolved; europium and terbium chelators for time-resolved

fluorometric assays)
IT 51-48-9, T4 (Hormone), analysis 9002-71-5, Thyrotrophin
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(europium and terbium chelators for time-resolved fluorometric assays)
IT 9001-78-9, Alkaline phosphatase
RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(europium and terbium chelators for time-resolved fluorometric assays)
IT 492-27-3, 4-Hydroxy-quinoline-2-carboxylic acid 574-92-5 874-24-8, 3-Hydroxypicolinic acid 874-24-8D, 3-Hydroxypicolinic acid, galactoside and phosphate esters 879-65-2, 2-Quinoxaline carboxylic acid 879-65-2D, 2-Quinoxaline carboxylic acid, galactoside and phosphate esters 948-60-7, Pterin-6-carboxylic acid 948-60-7D, Pterin-6-carboxylic acid, galactoside and phosphate esters 1204-75-7, 3-Hydroxy-2-quinoxaline carboxylic acid 1204-75-7D, 3-Hydroxy-2-quinoxaline carboxylic acid, galactoside and phosphate esters 6950-82-9, 7-Hydroxycoumarin-4-acetic acid 6950-82-9D, 7-Hydroxycoumarin-4-acetic acid, galactoside and phosphate esters 13250-97-0 13250-97-0D, galactoside and phosphate esters 22541-18-0, Europium(3+), analysis 22541-20-4, Terbium(3+), analysis 22919-26-2 22919-26-2D, galactoside and phosphate esters 54375-47-2, Calcein blue 54375-47-2D, Calcein blue, galactoside and phosphate esters
RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); PRP (Properties); ANST (Analytical study); USES (Uses)
(europium and terbium chelators for time-resolved fluorometric assays)
IT 574-92-5DP, phosphate esters
RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(europium and terbium chelators for time-resolved fluorometric assays)
IT **60-00-4**, EDTA, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(europium and terbium chelators for time-resolved fluorometric assays)
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; EP 171978 1986 HCAPLUS
(2) Anon; EP 191575 1986 HCAPLUS
(3) Anon; EP 201211 1986 HCAPLUS
(4) Anon; WO 8601604 1986 HCAPLUS
(5) Anon; 1987 HCAPLUS
(6) Anon; EP 290269 1987 HCAPLUS
(7) Anon; 1990 HCAPLUS
(8) Anon; 1990 HCAPLUS
(9) Anon; 1991 HCAPLUS
(10) Anon; 1991 HCAPLUS
(11) Anon; WO 9108490 1991 HCAPLUS
(12) Anon; 1993 HCAPLUS
(13) Chan; HCAPLUS
(14) Christopoulos; Analyt Chem 1992, V64, P342 HCAPLUS
(15) Diamandis; US 5312922 1994 HCAPLUS
(16) Diamandis; J Immunol Meth 1988, V112, P43 HCAPLUS
(17) Evangelista; Anal Biochem 1991, V197, P213 HCAPLUS
(18) Kallistratos; Chimika Chronika, New Series 1982, V11, P249 HCAPLUS
(19) Khosravi; HCAPLUS
(20) Kidani; Bull Chem Soc Japan 1974, V47(8), P2040 HCAPLUS
(21) Papanastasiou-Diamandi; Clinical Chem 1992, V38(4), P545 HCAPLUS
(22) Parkinson; US 5095099 1992 HCAPLUS
(23) Ye, J; Luminescence properties of pyridinecarboxylic acid-europium(III) complexes 1991 HCAPLUS
IT **60-00-4**, EDTA, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(europium and terbium chelators for time-resolved fluorometric assays)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 17 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:744969 HCAPLUS
DN 130:20593
ED Entered STN: 24 Nov 1998
TI The use of biologically active substances for influencing the extracellular space of sensory cells
IN Eckmiller, Marion Sangster
PA Germany
SO PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K038-55
ICS A61K031-415; A61K033-06; A61K045-00; A61K009-00; A61K009-14
CC 1-12 (Pharmacology)
Section cross-reference(s): 2, 14
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9850065	A2	19981112	WO 1998-EP1951	19980402 <--
WO 9850065	A3	19990610		
W: AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GM, GW, HU, IL, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TT, UA, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 19718826	A1	19981112	DE 1997-19718826	19970505 <--
CA 2288631	AA	19981112	CA 1998-2288631	19980402 <--
AU 9876417	A1	19981127	AU 1998-76417	19980402 <--
EP 980256	A2	20000223	EP 1998-924097	19980402 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI DE 1997-19718826	A	19970505 <--		
WO 1998-EP1951	W	19980402 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9850065	ICM	A61K038-55
	ICS	A61K031-415; A61K033-06; A61K045-00; A61K009-00; A61K009-14
WO 9850065	ECLA	G01N033/50D2 <--
DE 19718826	ECLA	G01N033/50D2J4 <--

AB The invention relates to the use of an active substance influencing the calcium homeostasis of cells to treat degeneration of sensory cells and adjacent cells. The effect of higher Ca concns. with and without calpain inhibitors on the structure of retinal outer segments was determined
ST drug extracellular area sensory cell; calcium antagonist extracellular area sensory cell
IT Nervous system
Nervous system
(Refsum disease; drugs for influencing extracellular area of sensory cells)
IT Enzymes, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(activators or inhibitors; drugs for influencing extracellular area of sensory cells)
IT Ion channel blockers
(calcium; drugs for influencing extracellular area of sensory cells)
IT **Chelates**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(calcium; drugs for influencing extracellular area of sensory cells)
IT Eye, disease
(choroideremia; drugs for influencing extracellular area of sensory cells)
IT Ear
(cochlea; drugs for influencing extracellular area of sensory cells)
IT Microscopy
(confocal; drugs for influencing extracellular area of sensory cells)
IT Photoreceptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(degeneration; drugs for influencing extracellular area of sensory cells)
IT Blindness
Cytotoxic agents
Ear
Epithelium
Fluorescence
Fluorescence microscopy
Homeostasis
Ionophores
Muscular dystrophy
Neuroglia
(drugs for influencing extracellular area of sensory cells)
IT Calmodulins
Kininogens
Nucleotides, biological studies
Peptides, biological studies
Phosphatidylserines
Proteins, general, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drugs for influencing extracellular area of sensory cells)
IT Eye, disease
(macula, degeneration; drugs for influencing extracellular area of sensory cells)
IT Vision
(myopia; drugs for influencing extracellular area of sensory cells)
IT Blindness
(night, congenital stationary; drugs for influencing extracellular area of sensory cells)
IT Proliferation inhibition
(proliferation inhibitors; drugs for influencing extracellular area of sensory cells)
IT Eye
(retina; drugs for influencing extracellular area of sensory cells)
IT Eye, disease
(retinitis pigmentosa; drugs for influencing extracellular area of sensory cells)
IT Organ, animal
(sensory; drugs for influencing extracellular area of sensory cells)
IT Microfilament
Microtubule
(stabilizers; drugs for influencing extracellular area of sensory cells)
IT 50-53-3, Chlorpromazine, biological studies 56-65-5, ATP, biological studies 57-22-7, Vincristine 58-64-0, ADP, biological studies 58-74-2, Papaverine 59-96-1, Phenoxybenzamine **60-00-4**, EDTA, biological studies 60-92-4, CAMP 61-19-8, AMP, biological studies 64-69-7, Iodoacetic acid 64-86-8, Colchicine 67-42-5, EGTA 85-32-5, GMP 86-01-1, GTP 117-89-5, Trifluoperazine 128-53-0, N-Ethylmaleimide 138-85-2, p-Chloromercuribenzoate 140-64-7, Pentamidine isethionate 144-48-9, Iodoacetamide 146-91-8, GDP 362-74-3 477-30-5, Demecolcine 605-75-4, Trifluoperazine dimaleate 865-21-4, Vinblastine 1405-97-6, Gramicidin 1609-47-8, Diethyl pyrocarbonate 2149-70-4 3483-12-3, Dithiothreitol 4611-05-6, Ophiobolin A 7439-93-2D, Lithium, compds., biological studies 7439-95-4D, Magnesium, compds., biological studies 7439-96-5D, Manganese, compds., biological studies 7440-09-7D, Potassium, compds., biological studies 7440-23-5D, Sodium, compds., biological studies 7440-39-3D, Barium, compds., biological studies 7440-66-6D, Zinc, compds., biological studies 7440-70-2D, Calcium, compds., biological studies 7665-99-8, CGMP 7782-49-2D, Selenium, compds., biological studies 10540-29-1, Tamoxifen 14402-89-2, Sodium nitroprusside 15663-27-1, Cisplatin 17090-79-8, Monensin 20449-79-0, Melittin 21829-25-4, Nifedipine 23583-48-4 28822-58-4, IBMX 31023-24-2, Isovalerylcarnitine 31356-94-2 31430-18-9, Nocodazole 32266-35-6 33069-62-4, Paclitaxel 33069-62-4D, Taxol, derivs. 35517-12-5, W-12 37187-49-8, Cytochalasin 37691-11-5, Antipain 50476-43-2, SQ 65442 50903-99-6, L-Name 52665-69-7, Calcimycin 55123-66-5, Leupeptin 56092-81-0, Ionomycin 57265-65-3, Calmidazolium chloride 62996-74-1, Staurosporin 64706-54-3, Bepridil 65595-90-6, W-7 66701-25-5, E-64 67526-95-8, Thapsigargin 72093-21-1, Mastoparan 75472-92-3 76684-89-4, E-64c 79079-11-1, Calpastatin 79458-81-4, W-5 83016-35-7 84468-17-7, H-9 84477-87-2, H-7 84478-11-5, H-8 85233-19-8, BAPTA 88191-84-8, MDL-28170 88321-09-9, Aloxistatin 88519-57-7, W 13

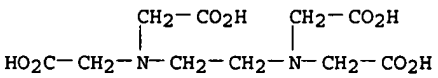
91742-10-8, HA-1004 95013-41-5, Calmidazolium 110044-82-1, Calpain inhibitor I 110115-07-6, Calpain inhibitor II 114977-28-5 115044-69-4 116476-14-3, SD-3211 116614-45-0 119139-23-0 127243-85-0, H-89 128578-18-7 150418-07-8 158798-83-5, AK275 160399-35-9, AK295 162496-41-5, DY-9760e 172806-21-2 179528-45-1, PD 150606 190274-53-4, SJA 6017
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drugs for influencing extracellular area of sensory cells)

IT 9026-43-1, Protein kinase 78990-62-2, Calpain
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; drugs for influencing extracellular area of sensory cells)

IT 10102-43-9, Nitric oxide, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(release substances; drugs for influencing extracellular area of sensory cells)

IT **60-00-4**, EDTA, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drugs for influencing extracellular area of sensory cells)

RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 18 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:250643 HCAPLUS
DN 128:248565
ED Entered STN: 02 May 1998
TI Bioactive and/or targeted dendrimer conjugates
IN Tomalia, Donald A.; Baker, James R.; Cheng, Roberta C.; Bielinska, Anna U.; Fazio, Michael J.; Hedstrand, David M.; Johnson, Jennifer A.; Kaplan, Donald A.; Klakamp, Scott L.; et al.
PA Dow Chemical Co., USA; Dendritech Inc.; University of Michigan
SO U.S., 139 pp., Cont. -in-part of U. S. Ser. No. 316,536, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K031-74
ICS A61K009-14; A61K031-785
NCL 424486000
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1, 3, 5, 8, 9, 62
FAN.CNT 9

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 5714166	A	19980203	US 1995-400203	19950307	<--
	BR 8707431	A	19881101	BR 1987-7431	19870419	<--
	AT 89743	E	19930615	AT 1987-307266	19870817	<--
	JP 63501878	T2	19880728	JP 1987-505282	19870818	<--
	JP 07002840	B4	19950118			
	JP 63502350	T2	19880908	JP 1987-505084	19870818	<--
	JP 07057735	B4	19950621			
	BR 8707433	A	19881101	BR 1987-7433	19870818	<--
	FI 8801768	A	19880415	FI 1988-1768	19880415	<--
	US 5338532	A	19940816	US 1991-654851	19910213	<--
	US 5527524	A	19960618	US 1993-43198	19930405	<--
	CA 2161684	AA	19950914	CA 1995-2161684	19950307	<--
	ZA 9501877	A	19960909	ZA 1995-1877	19950307	<--
	RU 2127125	C1	19990310	RU 1995-122714	19950307	<--
	IL 128773	A1	20010520	IL 1995-128773	19950307	<--
	IL 128774	A1	20010520	IL 1995-128774	19950307	<--
	IL 128775	A1	20010520	IL 1995-128775	19950307	<--
	IL 112920	A1	20030410	IL 1995-112920	19950307	<--
	FI 9801807	A	19980824	FI 1998-1807	19980824	<--
	AU 768662	B2	20031218	AU 2002-29312	20020328	<--
	AU 2002029312	A5	20020523			
PRAI	US 1986-897455	B2	19860818	<--		
	US 1987-87266	B2	19870818	<--		

US 1989-386049	B2	19890726	<--
US 1991-654851	A2	19910213	<--
US 1993-43198	A2	19930405	<--
US 1993-43198	A2	19930405	<--
US 1994-207494	B2	19940307	<--
US 1994-316536	B2	19940930	<--
EP 1987-307266	A	19870817	<--
WO 1987-US2075	W	19870818	<--
WO 1987-US2076	A	19870818	<--
IL 1995-112920	A3	19950307	<--
AU 1999-64440	A3	19991210	<--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5714166	ICM	A61K031-74
	ICS	A61K009-14; A61K031-785
	NCL	424486000
US 5714166	ECLA	A01N025/10; A61K047/48K6; A61K047/48W18; C07C211/29; C07C233/11; C07C237/20; C08G083/00D; C08L010/00B; C12N015/87 <--
US 5338532	ECLA	A01N025/10; A61K047/48K6; A61K047/48T4K2; A61K047/48W18; C07C103/50; C08G073/02; C08G083/00D; C08L001/00B <--
US 5527524	ECLA	A01N025/10; A61K047/48K6; A61K047/48W18; C07C103/50; C07C211/29; C07C233/11; C07C237/20; C08G; C08L101/00B; C12N015/87 <--

AB Dendritic polymer conjugates which are composed of at least one dendrimer in association with at least one unit of a carried material, where the carrier material can be a biol. response modifier, have been prepared The conjugate can also have a target director present, and when it is present then the carried material may be a bioactive agent. Preferred dendritic polymers are dense star polymers, which have been complexed with biol. response modifiers. These conjugates and complexes have particularly advantageous properties due to their unique characteristics.

ST drug dendrimer conjugate gene delivery

IT Animal cell line
(COS-1, transfection of; bioactive and/or targeted dendrimer conjugates)

IT Immunoglobulins
RL: PNU (Preparation, unclassified); PREP (Preparation)
(G, dendrimer conjugates; bioactive and/or targeted dendrimer conjugates)

IT Plasmids
(RSV-luc, dendrimer complexation with; bioactive and/or targeted dendrimer conjugates)

IT Animal cell line
(Rat-2, transfection of; bioactive and/or targeted dendrimer conjugates)

IT Diagnosis
(agents; bioactive and/or targeted dendrimer conjugates)

IT Antitumor agents
Deodorants
Drug bioavailability
Fluorescent indicators
Gene therapy
Genetic engineering
Solvents
Transformation, genetic
(bioactive and/or targeted dendrimer conjugates)

IT Radionuclides, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(bioactive and/or targeted dendrimer conjugates)

IT Polyamines
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(bioactive and/or targeted dendrimer conjugates)

IT Ultrafilters
(calibration of; bioactive and/or targeted dendrimer conjugates)

IT Drug delivery systems
(carriers; bioactive and/or targeted dendrimer conjugates)

IT Polyelectrolytes
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(cationic, polynucleotide conjugates; bioactive and/or targeted dendrimer conjugates)

IT Toxins
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(chelated, conjugates; bioactive and/or targeted dendrimer conjugates)
IT Antigens
Metals, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(chelated, conjugates; bioactive and/or targeted dendrimer conjugates)
IT Intestine, neoplasm
(colon, carcinoma, dendrimer-antibody conjugate uptake by; bioactive and/or targeted dendrimer conjugates)
IT Tomography
(computer-assisted, reagents; bioactive and/or targeted dendrimer conjugates)
IT Avidins
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(conjugates, target director; bioactive and/or targeted dendrimer conjugates)
IT **Chelating agents**
Pesticides
(conjugates; bioactive and/or targeted dendrimer conjugates)
IT Dendritic polymers
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(conjugates; bioactive and/or targeted dendrimer conjugates)
IT Antibodies
Pheromones, animal
Polyamines
Tumor necrosis factors
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(conjugates; bioactive and/or targeted dendrimer conjugates)
IT Imaging agents
(contrast, conjugates; bioactive and/or targeted dendrimer conjugates)
IT DNA
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(dendrimer complexation with; bioactive and/or targeted dendrimer conjugates)
IT Drugs
Herbicides
(dendrimer conjugates; bioactive and/or targeted dendrimer conjugates)
IT Gene
Interferons
Interleukins
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(dendrimer conjugates; bioactive and/or targeted dendrimer conjugates)
IT Isothiocyanates
RL: PNU (Preparation, unclassified); PREP (Preparation)
(dendrimer functionality; bioactive and/or targeted dendrimer conjugates)
IT Amino acids, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(dendrimer surface functionality; bioactive and/or targeted dendrimer conjugates)
IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(digestive, protection from; bioactive and/or targeted dendrimer conjugates)
IT Reagents
RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(for PET; bioactive and/or targeted dendrimer conjugates)
IT Odor and Odorous substances
(mols.; bioactive and/or targeted dendrimer conjugates)
IT Antibodies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(monoclonal, conjugates; bioactive and/or targeted dendrimer conjugates)
IT Drug delivery systems
(nanoparticles; bioactive and/or targeted dendrimer conjugates)

IT Electron beams
(opacifiers; bioactive and/or targeted dendrimer conjugates)
IT Polyamines
Polyamines
Polyamines
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polyamide-, dendrimers, conjugates; bioactive and/or targeted dendrimer conjugates)
IT Dendritic polymers
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polyamide-polyamines, conjugates; bioactive and/or targeted dendrimer conjugates)
IT Polyamides, biological studies
Polyamides, biological studies
Polyamides, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polyamine-, dendrimers, conjugates; bioactive and/or targeted dendrimer conjugates)
IT Digestion, biological
(protection from; bioactive and/or targeted dendrimer conjugates)
IT Avidins
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(reaction products with polyamines; bioactive and/or targeted dendrimer conjugates)
IT Positron-emission tomography
(reagents; bioactive and/or targeted dendrimer conjugates)
IT Polymers, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(star-branched, conjugates; bioactive and/or targeted dendrimer conjugates)
IT Fibroblast
Melanoma
(transfection of; bioactive and/or targeted dendrimer conjugates)
IT Biological transport
(uptake, of dendrimer conjugates; bioactive and/or targeted dendrimer conjugates)
IT 9004-54-0, Dextran, uses
RL: NUU (Other use, unclassified); USES (Uses)
(-DEAE solns.; bioactive and/or targeted dendrimer conjugates)
IT 100-37-8
RL: NUU (Other use, unclassified); USES (Uses)
(-dextran solns.; bioactive and/or targeted dendrimer conjugates)
IT 5989-27-5, R-(+)-Limonene
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(bioactive and/or targeted dendrimer conjugates)
IT 56-81-5, 1,2,3-Propanetriol, uses 67-68-5, Dmso, uses
RL: NUU (Other use, unclassified); USES (Uses)
(bioactive and/or targeted dendrimer conjugates)
IT 69-72-7, Salicylic acid, processes 90-82-4, Pseudoephedrine
10098-91-6, Yttrium-90, processes 15750-15-9, Indium-111, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(bioactive and/or targeted dendrimer conjugates)
IT 54-05-7D, Chloroquine, conjugates 7439-89-6D, Iron, chelates, biological studies 7439-96-5D, Manganese, chelates, biological studies
7440-05-3D, Palladium, chelates, biological studies 7440-16-6D, Rhodium, chelates, biological studies 7440-54-2D, Gadolinium, chelates, biological studies 7440-65-5D, Yttrium, chelates, biological studies
143011-72-7, Granulocyte colony stimulating factor
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(bioactive and/or targeted dendrimer conjugates)
IT **67-43-6**, Diethylenetriaminepentaacetic acid 79-08-3, Bromoacetic acid 96-33-3 107-15-3, 1,2-Ethanediamine, reactions 107-16-4, Glycolonitrile 113-24-6, Sodium pyruvate 118-48-9, Isatoic anhydride
127-09-3, Sodium acetate 350-46-9, (4-Fluoro)nitrobenzene 463-71-8, Thiophosgene 543-27-1, Isobutyl chloroformate 605-65-2, Dansyl chloride 930-41-6, Mesyl aziridine 1892-57-5, EDAC 3229-00-3, Pentaerythrityltetrabromide 3326-32-7, Fluorescein-5-isothiocyanate

4097-89-6, Tris(2-aminoethyl)amine 7598-70-1, Diethyl p-Nitrobenzylmalonate 7647-10-1, Palladium chloride 7665-72-7, tert-Butyl glycidyl ether 7705-08-0, Iron chloride (FeCl3), reactions 7718-54-9, Nickel dichloride, reactions 10049-07-7, Rhodium trichloride 10138-52-0, Gadolinium trichloride 10361-92-9, Yttrium chloride 12672-70-7, Indium chloride 16056-77-2, Gadolinium triacetate 21811-74-5D, reaction products with polyamidoamine dendrimers 24424-99-5, Di-tert-butyl dicarbonate 27072-45-3, Fluorescein isothiocyanate 51908-46-4, N-Dansyl aziridine 66556-73-8 72252-47-2, 4-Hydroxymethyl-2,6,7-trioxabicyclo[2.2.2]-octane 106754-95-4, 4'-Aminomethyl fluorescein 119822-23-0 119822-24-1, Dimethyl 4-Aminobenzylmalonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(bioactive and/or targeted dendrimer conjugates)

IT 58-85-5DP, Biotin, reaction products with polyamines 79-08-3DP, Bromoacetic acid, reaction products with polyamines 79-10-7DP, 2-Propenoic acid, reaction products with polyamines, preparation 107-16-4DP, Glycolonitrile, reaction products with polyamines 350-46-9DP, (4-Fluoro)nitrobenzene, reaction products with polyamines 463-71-8DP, Thiophosgene, reaction products with polyamines 2984-50-1DP, reaction products with polyamidoamine dendrimers 3326-32-7DP, Fluorescein-5-isothiocyanate, reaction products with polyamines 7390-81-0DP, Oxirane, hexadecyl-, reaction products with polyamidoamine dendrimers 7665-72-7DP, tert-Butyl glycidyl ether, reaction products with polyamines 9004-10-8DP, Insulin, reaction products with polyamines, preparation 22663-09-8DP, reaction products with polyamidoamine dendrimers 23363-14-6P, Yttrium acetate 119822-20-7P 119822-22-9P 119822-27-4P 119822-28-5P 119822-29-6P 119822-30-9P 119822-31-0P 119822-32-1P 119822-33-2P 119822-34-3P 171409-41-9P 205043-20-5P 205043-22-7P 205043-23-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(bioactive and/or targeted dendrimer conjugates)

IT 119822-21-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(bioactive and/or targeted dendrimer conjugates)

IT 94-75-7, 2,4-D, processes 76823-03-5, 5-Carboxyfluorescein
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(dendrimer conjugates; bioactive and/or targeted dendrimer conjugates)

IT 15347-57-6, Lead acetate
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(dendrimer incorporation of; bioactive and/or targeted dendrimer conjugates)

IT 50-78-2, Aspirin 58-82-2, Bradykinin 518-47-8, Uranine 7440-02-0, Nickel, processes 7773-01-5, Manganese chloride 21293-29-8, Abscisic acid 21829-25-4, Nifedipine 30953-20-9, Bradykinin potentiator C
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(dendrimer incorporation of; bioactive and/or targeted dendrimer conjugates)

IT 56-87-1, Lysine, biological studies 74-79-3, L-Arginine, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(dendrimer surface functionality; bioactive and/or targeted dendrimer conjugates)

IT 171409-41-9DP, hydrolyzed 205043-22-7DP, reaction products with Me acrylate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(dendritic; bioactive and/or targeted dendrimer conjugates)

IT 9003-99-0DP, Peroxidase, dendrimer conjugates
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(horseradish; bioactive and/or targeted dendrimer conjugates)

IT 9014-00-0, Luciferase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(plasmid encoding; bioactive and/or targeted dendrimer conjugates)

IT 58-85-5D, Biotin, conjugates 59-23-4D, Galactose, trisaccharide conjugates 127-17-3, Pyruvic acid, biological studies 9004-10-8D, Insulin, conjugates, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(target director; bioactive and/or targeted dendrimer conjugates)

RE.CNT 135 THERE ARE 135 CITED REFERENCES AVAILABLE FOR THIS RECORD
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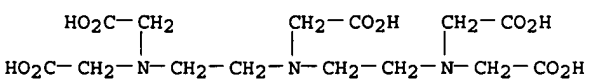
IT **67-43-6**, Diethylenetriaminepentaacetic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(bioactive and/or targeted dendrimer conjugates)

RN 67-43-6 HCAPLUS

CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 19 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:793043 HCAPLUS
DN 128:36161

ED Entered STN: 19 Dec 1997
TI Metal interactions during H2O2 bleaching and irradiation of pulp chromophores
AU Tylli, Henrik; Forsskahl, Ingegerd; Olkkonen, Carola
CS Department of Chemistry, University of Helsinki, FIN-00014, Finland
SO International Symposium on Wood and Pulping Chemistry, 8th, Helsinki, June 6-9, 1995 (1995), Volume 3, 49-54 Publisher: Gummerus Kirjapaino Oy, Jyvaskyla, Finland.
CODEN: 65KDAY
DT Conference
LA English
CC 43-6 (Cellulose, Lignin, Paper, and Other Wood Products)
AB The kinetics of radical formation from a hydroquinone compound (methoxyhydroquinone) were studied in aqueous sodium hydroxide solution using ESR spectroscopy. The effects of adding transition metal ions (Fe3+, Cu2+ and Mn2+), hydrogen peroxide and a chelating agent (diethylenetriaminepentaacetic acid) were investigated. The emission characteristics of peroxide-bleached chemical pulp doped with different amts. of Fe3+ ions were also studied. The kinetics were followed by fluorescence spectroscopy during irradiation at 350 nm.
ST metal interaction hydrogen peroxide bleaching pulp; iron interaction hydrogen peroxide bleaching pulp; copper interaction hydrogen peroxide bleaching pulp; manganese interaction hydrogen peroxide bleaching pulp; diethylenetriaminepentaacetic acid hydrogen peroxide bleaching pulp; fluorescence pulp iron interaction
IT Cellulose pulp
Fluorescence
(emission characteristics of peroxide-bleached chemical pulp doped with iron ions)
IT **Chelating agents**
(radical formation from methoxyhydroquinone in presence of metal ions and diethylenetriaminepentaacetic acid and hydrogen peroxide)
IT 43042-31-5 43042-33-7 51281-73-3
RL: PRP (Properties)
(ESR spectra in aqueous sodium hydroxide solution)
IT **67-43-6**, Diethylenetriaminepentaacetic acid
RL: NUU (Other use, unclassified); USES (Uses)
(chelating agents; radical formation from methoxyhydroquinone in presence of metal ions and diethylenetriaminepentaacetic acid and hydrogen peroxide)
IT 7447-39-4, Copper dichloride, uses 7705-08-0, Ferric chloride, uses 7722-84-1, Hydrogen peroxide, uses 7773-01-5, Manganese dichloride
RL: NUU (Other use, unclassified); USES (Uses)
(radical formation from methoxyhydroquinone in presence of metal ions and diethylenetriaminepentaacetic acid and hydrogen peroxide)
IT 824-46-4, Methoxyhydroquinone
RL: RCT (Reactant); RACT (Reactant or reagent)
(radical formation from methoxyhydroquinone in presence of metal ions and diethylenetriaminepentaacetic acid and hydrogen peroxide)
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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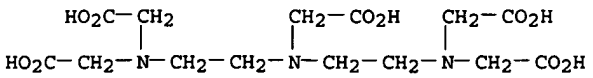
IT **67-43-6**, Diethylenetriaminepentaacetic acid
RL: NUU (Other use, unclassified); USES (Uses)
(chelating agents; radical formation from methoxyhydroquinone in presence of metal ions and diethylenetriaminepentaacetic acid and hydrogen peroxide)
RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 20 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:753649 HCAPLUS
DN 128:121166
ED Entered STN: 03 Dec 1997
TI Evaluation of solution structures of highly luminescent europium(III) chelates by using laser induced excitation of the 7F0.fwdarw.5D0 transition
AU Latva, Martti; Takalo, Harri; Mukkala, Veli-Matti; Kankare, Jouko
CS Department of Chemistry, University of Turku, Turku, FIN-20014, Finland
SO Inorganica Chimica Acta (1998), 267(1), 63-72
CODEN: ICHAA3; ISSN: 0020-1693
PB Elsevier Science S.A.
DT Journal
LA English
CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 68, 78
AB Solution structures of 13 Eu(III) chelates were examined by using laser induced excitation of the 7F0.fwdarw.5D0 transition. Remarkable variations in the 7F0.fwdarw.5D0 excitation spectra of 2,2',2'',2'''-{[aryl]bis(methylenenitrilo)}tetrakis(acetic acid) complexes of Eu(III) are observed depending on the denticity of the ligand and the number and character of the coordinated N atoms. The evaluation of the structures is made from the energy of the 7F0.fwdarw.5D0 excitation transition of Eu(III) because the 7F0.fwdarw.5D0 transition energy is dependent on the number and type of coordinating atoms in the 1st coordination sphere of Eu(III). Addnl. information about the structures is obtained by measuring the excited-state lifetimes of the Eu(III) chelates. The 7F0.fwdarw.5D0 transition energy shifts always an equal amount to lower energies due to the coordination of a certain group or atom. The energies of the 7F0.fwdarw.5D0 excitation transitions are also used to calculate these nephelauxetic shift parameters for coordinated N heteroatoms in the 2,2',2'',2'''-{[4-(phenylethynyl)pyridine-2,6-diyl]bis-(methylenenitrilo)}tetrakis(acetic acid) (3), 2,2',2'',2'''-[(2,2'-bipyridine-6,6'-diyl)bis-(methylenenitrilo)]tetrakis(acetic acid) (4), 2,2',2'',2'''-[(2,2':6'2''-terpyridine-6,6''-diyl)bis(methylenenitrilo)]tetrakis(acetic acid) (5), 2,2',2'',2'''-{[6,6'-(pyrazole-1,3-diyl)-bis(pyridine)-2,2'-diyl]bis(methylenenitrilo)}tetrakis(acetic acid) (7), 2,2',2'',2'''-{[6,6'-(thiazole-2,4-diyl)bis(pyridine)-2,2'-diyl]-bis(methylenenitrilo)}tetrakis(acetic acid) (8) and 2,2',2'',2'''-{[2,2'-(pyridine-2,6-diyl)bis(thiazole)-4,4'-diyl]bis-(methylenenitrilo)}-tetrakis(acetic acid) (9) complexes. The variation in the shift parameters of the N heteroatoms probably is due to the different distances between the N heteroatoms and Eu(III) ions.
ST europium chelate soln structure luminescence lifetime; fluorescence lifetime europium chelate soln structure; nephelauxetic effect europium chelate soln luminescence
IT Bond length
(europium-nitrogen; evaluation of solution structures of highly luminescent europium(III) chelates by using laser induced excitation of 7F0.fwdarw.5D0 transition)
IT **Complexation**
Fluorescence
Fluorescence decay
Molecular structure
Nephelauxetic effect
Solution structure
(evaluation of solution structures of highly luminescent europium(III) **chelates** by using **laser induced** excitation of 7F0.fwdarw.5D0 transition)
IT **Chelates**
RL: PRP (Properties)
(evaluation of solution structures of highly luminescent europium(III) chelates by using laser induced excitation of 7F0.fwdarw.5D0 transition)
IT Molecular structure-property relationship
(fluorescence; evaluation of solution structures of highly luminescent europium(III) chelates by using laser induced excitation of 7F0.fwdarw.5D0 transition)

IT Luminescence
(lifetime; evaluation of solution structures of highly luminescent europium(III) chelates by using laser induced excitation of 7F0.fwdarw.5D0 transition)
IT **60-00-4D**, europium complexes 7440-53-1D, Europium, arylbis(methylenenitrilo)tetrakis(acetic acid)complexes, properties 94817-64-8D, europium complexes 95678-49-2D, europium complexes 95678-50-5D, europium complexes 106967-34-4D, europium complexes 122637-26-7D, europium complexes 129077-63-0D, europium complexes 150223-57-7D, europium complexes 150224-11-6D, europium complexes 178321-74-9D, europium complexes 178321-81-8D, europium complexes 189805-04-7D, europium complexes 197461-72-6D, europium complexes 201748-91-6D, europium complexes
RL: PRP (Properties)
(evaluation of solution structures of highly luminescent europium(III) chelates by using laser induced excitation of 7F0.fwdarw.5D0 transition)
IT 201748-91-6P 201748-92-7P 201748-93-8P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(evaluation of solution structures of highly luminescent europium(III) chelates by using laser induced excitation of 7F0.fwdarw.5D0 transition)
IT 294-80-4, 1,5,9-Triazacyclododecane 13965-03-2 178321-87-4, 2-Pyridinecarboxylic acid, 4-bromo-6-(bromomethyl)-, ethyl ester
RL: RCT (Reactant); RACT (Reactant or reagent)
(evaluation of solution structures of highly luminescent europium(III) chelates by using laser induced excitation of 7F0.fwdarw.5D0 transition)
RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD
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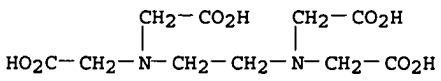
IT **60-00-4D**, europium complexes
RL: PRP (Properties)
(evaluation of solution structures of highly luminescent europium(III) chelates by using laser induced excitation of 7F0.fwdarw.5D0 transition)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 21 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:743280 HCAPLUS
DN 128:86016
ED Entered STN: 26 Nov 1997
TI T-jump study of calcium binding kinetics of calcium chelators
AU Naraghi, Mohammad
CS Department of Membrane Biophysics, Max-Planck-Institute for Biophysical Chemistry, Gottingen, D-37070, Germany
SO Cell Calcium (**1997**), 22(4), 255-268
CODEN: CECADV; ISSN: 0143-4160
PB Churchill Livingstone
DT Journal
LA English
CC 9-5 (Biochemical Methods)
AB Recent exptl. studies have investigated the kinetic competition between calcium chelators and the secretion apparatus at a fast central synapse. Simultaneously, math. modeling studies indicate the importance of a quant. knowledge of the binding kinetics of the chelators in studying fast physiol. processes operating on a millisecond time scale. Using the temperature-jump relaxation method, the author has studied the in vitro kinetics of Bis-Fura 2, Furaptra, Fluo 3, Calcium Green 1, Calcium Green 5N, Calcium Orange 5N as well as EGTA, BAPTA and H-EDTA in conditions which are identical to those implemented in our patch clamp recordings, i.e. 100-140 mM CsCl, 20-40 mM Cs-HEPES, 8 mM NaCl, pH = 7.2 at 22.degree.. The results can be summarized as follows: all fluorescent indicators have on rates in the range of 108-109 M-1s-1. They differ significantly with respect to their off-rates from each other according to their affinities, ranging from 100 s-1 up to 26 000 s-1. BAPTA is kinetically almost indistinguishable from Fura 2. EGTA and H-EDTA have small binding rate consts. for calcium in the range of 3.times.106 M-1s-1 since, at pH 7.20, protons need to be dissociated from the chelators before they can bind calcium ions.
ST temp jump relaxation calcium kinetics chelator
IT **Chelating agents**
Complexation kinetics
Fluorescent indicators
Simulation and Modeling, biological
(temperature jump relaxation study of calcium binding kinetics of calcium chelators)
IT 201045-09-2, Bis-Fura 2
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(Bis-Fura 2; temperature jump relaxation study of calcium binding kinetics of calcium chelators)
IT 154719-40-1, Calcium Green 1
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(Calcium Green 1; temperature jump relaxation study of calcium binding kinetics of calcium chelators)
IT 201045-19-4, Calcium Orange 5N
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(Calcium Orange 5N; temperature jump relaxation study of calcium binding kinetics of calcium chelators)
IT 153130-66-6, Calcium green 5N
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)

(Calcium green 5N; temperature jump relaxation study of calcium binding kinetics of calcium chelators)

IT **60-00-4**, EDTA, biological studies 67-42-5, EGTA 7440-70-2, Calcium, biological studies 85233-19-8, BAPTA 120551-15-7, Furaptra 123632-39-3, Fluo-3
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(temperature jump relaxation study of calcium binding kinetics of calcium chelators)

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD

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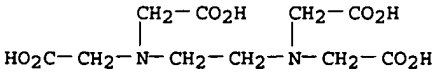
IT **60-00-4**, EDTA, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(temperature jump relaxation study of calcium binding kinetics of calcium chelators)

RN 60-00-4 HCAPLUS

CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 22 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:644881 HCAPLUS

DN 127:316418

ED Entered STN: 11 Oct 1997

TI Development and validation of fluorescence spectroscopic assays to evaluate antioxidant efficacy. Application to metal chelators

AU Arora, Arti; Strasburg, Gale M.

CS Department of Food Science and Human Nutrition, Michigan State University, East Lansing, MI, 48824, USA
SO Journal of the American Oil Chemists' Society (1997), 74(9), 1031-1040
CODEN: JAOCA7; ISSN: 0003-021X
PB AOCS Press
DT Journal
LA English
CC 9-5 (Biochemical Methods)
AB Two fluorescence-based assays were developed for rapid evaluation of compds. for antioxidant activity. These assays were based on the quenching of intensity of the fluorescent probe and an increase in its fluorescence anisotropy due to the free radicals generated during lipid peroxidn. A large unilamellar vesicle system, containing the fluorescence probe diphenylhexatriene-propionic acid, was used to study the effects of chelators on metal-ion-induced lipid peroxidn. In this paper, the actions of the chelating agents EDTA, nitrilotriacetic acid trisodium salt (NTA), adenosine-5'-diphosphate disodium salt (ADP), and sodium citrate on Fe(II)- and Fe(III)-induced peroxidn. were compared. The effects of chelators on metal-ion-induced peroxidn. depended on the type of metal used to initiate peroxidn. and, for citrate, also on the concentration of chelator used. EDTA strongly suppressed both Fe(II)- and Fe(III)-induced peroxidn. in this system. NTA and ADP inhibited Fe(III)-induced peroxidn. but enhanced Fe(II)-induced peroxidn. at all concns. tested. Citrate promoted both Fe(II)- and Fe(III)-induced peroxidns. at lower chelator-to-metal ratios; however, at higher ratios, it inhibited both peroxidns. The results of the two fluorescence-based assays agreed well with the quantitation of conjugated dienes and hydroperoxides by high-performance liquid chromatog. The combination of sensitivity, speed, and general utility associated with these methods suggests that these methods will be useful in rapid screening of exts. and purified compds. for antioxidant activity.
ST fluorescence spectroscopy antioxidant efficacy metal chelator
IT Antioxidants
Chelating agents
Fluorescence quenching
Fluorescent probes
Fluorometry
(development and validation of fluorescence spectroscopic assays to evaluate antioxidant efficacy)
IT Peroxidation
(lipid; development and validation of fluorescence spectroscopic assays to evaluate antioxidant efficacy)
IT Lipids, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(peroxidn.; development and validation of fluorescence spectroscopic assays to evaluate antioxidant efficacy)
IT 58-64-0, 5'-ADP, biological studies **60-00-4**, EDTA, biological studies 68-04-2, Sodium citrate 5064-31-3, Nitrilotriacetic acid trisodium salt 7439-89-6, Iron, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(development and validation of fluorescence spectroscopic assays to evaluate antioxidant efficacy)
RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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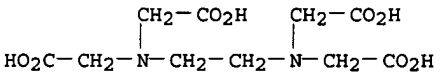
(48) Zhang, J; Free Radicals Biol Med 1995, V18, P1 HCAPLUS

IT **60-00-4**, EDTA, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(development and validation of fluorescence spectroscopic assays to evaluate antioxidant efficacy)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 23 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:426097 HCAPLUS
DN 127:77478
ED Entered STN: 10 Jul 1997
TI Immobilization of lanthanide ion chelates on DNA and their luminescence properties
AU Ozaki, H.; Matsuzawa, N.; Suda, E.; Sawai, H.
CS Department Chemistry, Gunma University, Gunma, 376, Japan
SO Kidorui (**1997**), 30, 358-359
CODEN: KIDOEP; ISSN: 0910-2205
PB Nippon Kidorui Gakkai
DT Journal
LA Japanese
CC 6-2 (General Biochemistry)
AB EDTA derivs. were synthesized as the ligands for the chelating lanthanide ion and their europium chelate were immobilized on DNA at an appropriate site. The fluorescence spectra of the Eu3+-chelate-labeled DNAs show the enhanced luminescence of europium. In addition, several kind of aromatic compound-attached DTPA derivs. were synthesized and the sensitizing effect of fluorescence were investigated.
ST europium chelate fluorescence DNA label
IT **Chelation**
Fluorescence
(immobilization of lanthanide ion **chelates** on DNA and their luminescence properties)
IT Rare earth metals, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(immobilization of lanthanide ion chelates on DNA and their luminescence properties)
IT DNA

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(labeled; immobilization of lanthanide ion chelates on DNA and their luminescence properties)

IT 7440-53-1, Europium, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(fluorescence spectra of the Eu3+-chelate-labeled DNA; immobilization of lanthanide ion chelates on DNA and their luminescence properties)

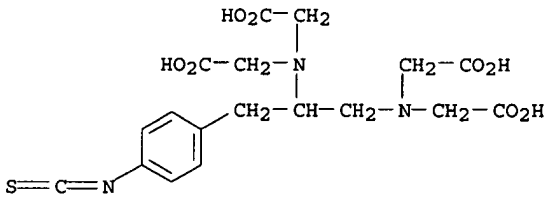
IT **105394-74-9P** 191660-90-9P
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(immobilization of lanthanide ion chelates on DNA and their luminescence properties)

IT **67-43-6DP**, Dtpa, derivs. 122404-69-7P 191660-93-2P
191660-95-4P 191660-97-6P 191660-99-8P 191661-01-5P 191661-02-6P
191661-03-7P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(immobilization of lanthanide ion chelates on DNA and their luminescence properties)

IT 65-49-6 95-55-6 123-30-8 134-32-7, 1-Naphthalenamine 591-27-5
2835-77-0 3731-51-9, 2-Pyridinemethanamine 23911-26-4 26093-31-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(immobilization of lanthanide ion chelates on DNA and their luminescence properties)

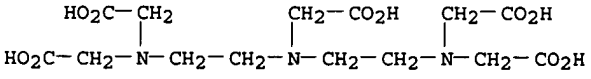
IT **105394-74-9P**
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(immobilization of lanthanide ion chelates on DNA and their luminescence properties)

RN 105394-74-9 HCAPLUS
CN Glycine, N,N'-[1-[(4-isothiocyanatophenyl)methyl]-1,2-ethanediyl]bis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



IT **67-43-6DP**, Dtpa, derivs.
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(immobilization of lanthanide ion chelates on DNA and their luminescence properties)

RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 24 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:367649 HCAPLUS
DN 125:81301
ED Entered STN: 26 Jun 1996
TI Reagent and method for analyzing solid components in urine
IN Inoue, Junya
PA Toa Medical Electronics Co., Ltd., Japan
SO Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G01N033-50
ICS G01N033-569
ICA G01N015-14; C12Q001-04

CC 9-15 (Biochemical Methods)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 708334	A2	19960424	EP 1995-610053	19951019 <--
	EP 708334	A3	19960918		
	EP 708334	B1	20010523		
	R: CH, DE, ES, FR, GB, IT, LI, NL				
	JP 08170960	A2	19960702	JP 1995-267454	19951016 <--
	JP 3580615	B2	20041027		
	CA 2160962	AA	19960421	CA 1995-2160962	19951019 <--
	AU 9534366	A1	19960502	AU 1995-34366	19951019 <--
	AU 701948	B2	19990211		
	EP 1089078	A1	20010404	EP 2000-123791	19951019 <--
	R: CH, DE, ES, FR, GB, IT, LI, NL				
	ES 2156927	T3	20010801	ES 1995-610053	19951019 <--
	US 5891733	A	19990406	US 1995-545939	19951020 <--
PRAI	JP 1994-255580	A	19941020 <--		
	EP 1995-610053	A3	19951019 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 708334	ICM	G01N033-50
	ICS	G01N033-569
	ICA	G01N015-14; C12Q001-04
EP 708334	ECLA	G01N015/12; G01N015/14; G01N033/52; G01N033/569 <--
US 5891733	ECLA	G01N015/12; G01N015/14; G01N033/52; G01N033/569 <--

OS MARPAT 125:81301

AB A reagent for analyzing solid components in urine comprising: (i) a buffer agent for maintaining pH at 5.0 to 9.0, (ii) an osmotic pressure compensating agent for maintaining osmotic pressure at 100 mOsm/kg to 600 mOsm/kg, (iii) a first dye which is a condensed benzene derivative, (i.v.) a second fluorescent dye capable of staining a damaged cell, and (v) a chelating agent. A diluent solution and a dyeing solution were prepared from pH 7.0 50 mM HEPES, sodium propionate (in an amount to adjust osmotic pressure at 150 mOsm/kg), and EDTA tri-K salt 0.4% and a dyeing solution consisting of 400 ppm 1st dye, and 1600 ppm second fluorescent dye.

ST urine analysis chelating osmotic dye

IT **Chelating agents**
Erythrocyte
Osmotic pressure
Urine analysis
(reagent composition containing dyes for analyzing solid components in urine)

IT **Dyes**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(**fluorescent**, reagent composition containing dyes for analyzing solid components in urine)

IT 514-73-8, NK-136
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 136; reagent composition containing dyes for analyzing solid components in urine)

IT 20591-23-5, NK-138
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 138; reagent composition containing dyes for analyzing solid components in urine)

IT 15185-43-0, NK-1511
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 1511; reagent composition containing dyes for analyzing solid components in urine)

IT 3071-69-0, NK 1590
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 1590; reagent composition containing dyes for analyzing solid components in urine)

IT 20517-94-6, NK-1836
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 1836; reagent composition containing dyes for analyzing solid components in urine)

IT 178742-72-8
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 1954; reagent composition containing dyes for analyzing solid components in urine)

IT 89872-07-1
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 2711; reagent composition containing dyes for analyzing solid components in urine)

IT 76433-27-7

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 2780; reagent composition containing dyes for analyzing solid components in urine)

IT 76433-29-9
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 2783; reagent composition containing dyes for analyzing solid components in urine)

IT 2642-25-3, NK-321
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 321; reagent composition containing dyes for analyzing solid components in urine)

IT 66230-26-0
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 375; reagent composition containing dyes for analyzing solid components in urine)

IT 3028-99-7
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 376; reagent composition containing dyes for analyzing solid components in urine)

IT 36536-22-8, NK-529
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 529; reagent composition containing dyes for analyzing solid components in urine)

IT 52181-10-9
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(NK 96; reagent composition containing dyes for analyzing solid components in urine)

IT 62669-60-7, Oxazine 720
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Oxazine 720; reagent composition containing dyes for analyzing solid components in urine)

IT 85256-40-2
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Oxazine 750 perchlorate; reagent composition containing dyes for analyzing solid components in urine)

IT 14969-56-3
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Rhodanile blue; reagent composition containing dyes for analyzing solid components in urine)

IT 3521-06-0, Basic blue 1
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(basic blue 1; reagent composition containing dyes for analyzing solid components in urine)

IT 569-64-2, Basic green 4
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(basic green 4; reagent composition containing dyes for analyzing solid components in urine)

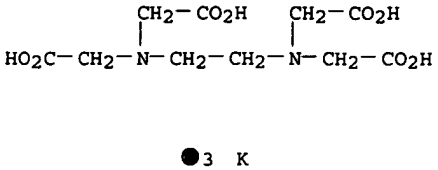
IT 633-03-4
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(basic green; reagent composition containing dyes for analyzing solid components in urine)

IT 60786-96-1
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(oxazine 4; reagent composition containing dyes for analyzing solid components in urine)

IT 82-94-0 1934-16-3, Basic blue 24 2381-85-3, Nile Blue chloride
7199-02-2, Capri Blue GON **17572-97-3**, Tripotassium EDTA
33231-00-4, Iodine green 89106-91-2, Basic blue 124 177772-75-7, Capri Blue BB
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(reagent composition containing dyes for analyzing solid components in urine)

IT **17572-97-3**, Tripotassium EDTA
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(reagent composition containing dyes for analyzing solid components in urine)

RN 17572-97-3 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tripotassium salt (9CI) (CA INDEX NAME)



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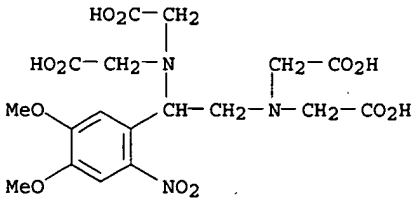
L41 ANSWER 25 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:57506 HCAPLUS
DN 124:189091
ED Entered STN: 27 Jan 1996
TI Laser photolysis of caged calcium: rates of calcium release by nitrophenyl-EGTA and DM-nitrophen
AU Ellis-Davies, Graham C.; Kaplan, Jack H.; Barsotti, Robert J.
CS Department of Biochemistry and Molecular Biology, Oregon Health Sciences University, Portland, OR, 97201, USA
SO Biophysical Journal (1996), 70(2), 1006-16
CODEN: BIOJAU; ISSN: 0006-3495
PB Biophysical Society
DT Journal
LA English
CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB Nitrophenyl-EGTA and DM-nitrophen are Ca2+ cages that release Ca2+ when cleaved upon illumination with near-UV light. Laser photolysis of nitrophenyl-EGTA produced transient intermediates that decayed bi-exponentially with rates of 500,000 s-1 and 100,000 s-1 in the presence of saturating Ca2+ and 290,000 s-1 and 68,000 s-1 in the absence of Ca2+ at pH 7.2 and 25.degree.C. Laser photolysis of nitrophenyl-EGTA in the presence of Ca2+ and the Ca2+ indicator of Ca-orange-5N produced a monotonic increase in the indicator fluorescence, which had a rate of 68,000 s-1 at pH 7.2 and 25.degree.C. Irradiation of DM-nitrophen produced similar results with somewhat slower kinetics. The transient intermediates decayed with rates of 80,000 s-1 and 11,000 s-1 in the presence of Ca2+ and 59,000 s-1 and 3,600 s-1 in the absence of Ca2+ at pH 7.2 and 25.degree.C. The rate of increase in Ca2+-indicator fluorescence produced upon photolysis of the DM-nitrophen: Ca2+ complex was 38,000 s-1 at pH 7.2 and 25.degree.C. In contrast, pulses in Ca2+ concentration were generated when the chelator concns. were more than the total Ca2+ concentration Photoreleased Ca2+ concentration stabilized under these circumstances to a steady state within 1-2 ms.
ST photolysis caged chelated calcium complex; nitrophenyl EGTA caged calcium complex photolysis; DM nitrophen caged calcium complex photolysis
IT Photochromism
(of transients produced in photolysis of nitrophenyl-EGTA calcium complex)
IT **Fluorescence**
Kinetics of photolysis
(rates of calcium ion release in laser photolysis of nitrophenyl-EGTA and DM-nitrophen calcium complexes)
IT **Coordination**
(**chelation, retro**, calcium ion release in laser photolysis of nitrophenyl-EGTA and DM-nitrophen calcium complexes)
IT Kinetics of coordination
(chelation, retro, rates of calcium ion release in laser photolysis of nitrophenyl-EGTA and DM-nitrophen calcium complexes)
IT Photolysis
(flash, rates of calcium ion release in laser photolysis of nitrophenyl-EGTA and DM-nitrophen calcium complexes)
IT 7440-70-2D, Calcium, cage complexes
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(laser photolysis of caged calcium)
IT 174022-25-4
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); FORM (Formation, nonpreparative); PROC (Process)
(photochromism of transients produced in photolysis of nitrophenyl-EGTA calcium complex isomers)
IT **117367-86-9D**, DM nitrophen, calcium complex
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(rates of calcium ion release in laser photolysis of nitrophenyl-EGTA and DM-nitrophen calcium complexes)

IT 14127-61-8, Calcium(2+), processes
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); FORM (Formation, nonpreparative); PROC (Process)
(rates of calcium ion release in laser photolysis of nitrophenyl-EGTA calcium complex)
IT 165168-77-4, Ca Orange 5N
RL: NUU (Other use, unclassified); USES (Uses)
(rates of calcium ion release in laser photolysis of nitrophenyl-EGTA calcium complex)
IT 174022-25-4, Nitrophenyl-EGTA calcium complex
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(rates of calcium ion release in laser photolysis of nitrophenyl-EGTA calcium complex)
IT **117367-86-9D**, DM nitrophen, calcium complex
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(rates of calcium ion release in laser photolysis of nitrophenyl-EGTA and DM-nitrophen calcium complexes)
RN 117367-86-9 HCAPLUS
CN Glycine, N,N'-[1-(4,5-dimethoxy-2-nitrophenyl)-1,2-ethanediyl]bis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 26 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1993:120484 HCAPLUS
DN 118:120484
ED Entered STN: 30 Mar 1993
TI Water-soluble, polymer-based reagents and conjugates comprising moieties derived from divinyl sulfone
IN Lihme, Allan Otto Fog; Boenisch, Thomas
PA Immunodex K/S, Den.
SO PCT Int. Appl., 149 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G01N033-543
ICS G01N033-537; C08B037-00
CC 9-14 (Biochemical Methods)
Section cross-reference(s): 15
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9301498	A1	19930121	WO 1992-DK206	19920629 <--
	W: AU, CA, CS, FI, HU, JP, KP, KR, NO, PL, RO, RU				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	US 5543332	A	19960806	US 1991-789757	19911108 <--
	CA 2112992	AA	19930121	CA 1992-2112992	19920629 <--
	CA 2112992	C	20020611		
	AU 9223489	A1	19930211	AU 1992-23489	19920629 <--
	AU 667051	B2	19960307		
	EP 594772	A1	19940504	EP 1992-916161	19920629 <--
	EP 594772	B1	19960828		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
	AT 142021	E	19960915	AT 1992-916161	19920629 <--
	ES 2094920	T3	19970201	ES 1992-916161	19920629 <--
	JP 3340434	B2	20021105	JP 1993-501899	19920629 <--
	NO 9400030	A	19940303	NO 1994-30	19940104 <--
PRAI	DK 1991-1309	A	19910704 <--		
	US 1991-789757	A	19911108 <--		
	WO 1992-DK206	A	19920629 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

WO 9301498 ICM G01N033-543
ICS G01N033-537; C08B037-00
US 5543332 ECLA G01N033/543F <--

AB Water-soluble reagents and conjugates which are particularly well suited for use, for example, in biol. relevant detection, quantification, and targetting procedures, e.g. in immunohistochem., antibody immobilization, separation, or purification, DNA hybridization tests, and flow cytometry, are based on a polymeric carrier to which are covalently attached .gtoreq.1 moieties derived from divinyl sulfone, each of which moieties is attached to the carrier via a covalent linkage formed between one of the 2 vinyl groups of a divinyl sulfone and a reactive functionality on the polymeric carrier. The mol. species, of which .gtoreq.1 may be attached to a carrier mol., is an antigen, antibody, hapten, gene probe, hormone, enzyme, drug, dye, fluorophore, etc. Methods are provided for the preparation of the reagents and conjugates. High-mol.-weight dextran was activated by reaction with divinyl sulfone and then coupled with horseradish peroxidase and with straptavidin. The conjugate was complexed with biotinylated rabbit anti-human .kappa. light chain. The complex was tested in an ELISA and in an immunohistochem. procedure.

ST polymer conjugate divinyl sulfone linkage; dextran conjugate divinyl sulfone immunoassay reagent

IT Albumins, reactions
RL: SPN (Synthetic preparation); PREP (Preparation)
(activation of, with divinyl sulfone, in preparation of conjugates for reagents)

IT Gums and Mucilages
(conjugates with divinyl sulfone and mols. for reagents)

IT **Chelating agents**
Dyes
Fluorescent substances
Luminescent substances
Pharmaceuticals
Phosphorescent substances
(conjugates with divinyl sulfone-polymer carrier, for reagents)

IT Avidins
Peptides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to divinyl sulfone-activated dextran, in reagent preparation)

IT Biosensors
Immunoassay
Nucleic acid hybridization
(divinyl sulfone-polymer carrier conjugates for reagents for)

IT Membranes
(hybridization assays on, divinyl sulfone-polymer carrier conjugates for reagents for)

IT Functional groups
(polymers containing nucleophilic, conjugates with divinyl sulfone and mols. for reagents)

IT Gene
RL: ANST (Analytical study)
(probes for, conjugates with divinyl sulfone-polymer carrier, for reagents)

IT Proteins, specific or class
RL: ANST (Analytical study)
(A, conjugates, with divinyl sulfone-polymer carrier, for reagents)

IT Proteins, specific or class
RL: ANST (Analytical study)
(G, conjugates, with divinyl sulfone-polymer carrier, for reagents)

IT Polymers, compounds
Proteins, specific or class
RL: ANST (Analytical study)
(conjugates, with divinyl sulfone and mols. for reagents)

IT Agglutinins and Lectins
Animal growth regulators
Antibodies
Antigens
Avidins
Enzymes
Ferritins
Haptens
Hormones
Monosaccharides
Oligosaccharides
Phycoerythrins
Polysaccharides, compounds
Receptors

Toxins
RL: ANST (Analytical study)
(conjugates, with divinyl sulfone-polymer carrier, for reagents)
IT Immunoassay
(enzyme, divinyl sulfone-polymer carrier conjugates for reagents for)
IT Immunoassay
(enzyme-linked immunosorbent assay, divinyl sulfone-polymer carrier conjugates for reagents for)
IT Cytometry
(flow, divinyl sulfone-polymer carrier conjugates for reagents for)
IT Atoms
(heavy, substance labeled with, conjugates with divinyl sulfone-polymer carrier, for reagents)
IT Immunoassay
(immunohistochem., divinyl sulfone-polymer carrier conjugates for reagents for)
IT Nucleic acid hybridization
(in situ, divinyl sulfone-polymer carrier conjugates for reagents for)
IT Antibodies
RL: ANST (Analytical study)
(monoclonal, conjugates, with divinyl sulfone-polymer carrier, for reagents)
IT Immunoassay
(nephelometric, divinyl sulfone-polymer carrier conjugates for reagents for)
IT Nucleotides, polymers
RL: ANST (Analytical study)
(oligo-, conjugates, with divinyl sulfone-polymer carrier, for reagents)
IT Nucleotides, polymers
RL: ANST (Analytical study)
(poly-, conjugates, with divinyl sulfone-polymer carrier, for reagents)
IT Immunoassay
(radioimmunoassay, divinyl sulfone-polymer carrier conjugates for reagents for)
IT Immunoassay
(turbidimetric, divinyl sulfone-polymer carrier conjugates for reagents for)
IT Globulins, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(.gamma.-, coupling of, to divinyl sulfone-activated dextran, in reagent preparation)
IT 9004-54-0, Dextran, uses 9004-62-0, Hydroxyethylcellulose 9049-76-7, Hydroxypropylstarch
RL: PROC (Process)
(activation of, with divinyl sulfone, in preparation of conjugates for reagents)
IT 52-90-4, Cysteine, uses 56-40-6, Glycine, uses 60-24-2, Mercaptoethanol 141-43-5, Ethanolamine, uses
RL: ANST (Analytical study)
(as deactivating substance in preparation of divinyl sulfone-polymer carrier conjugates for reagents)
IT 142-73-4, Iminodiacetic acid 7664-41-7, Ammonia, uses 9001-78-9, Alkaline phosphatase 9003-99-0, Peroxidase 27072-45-3, FITC
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to divinyl sulfone-activated dextran, in reagent preparation)
IT 9013-20-1, Streptavidin
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to divinyl sulfone-activated horseradish peroxidase-dextran, in reagent preparation)
IT 77-77-0, Divinyl sulfone
RL: ANST (Analytical study)
(dextrans and celluloses activation with, in preparation of conjugates for reagents)
IT 58-85-5D, Biotin, divinyl sulfone-polymer carrier conjugates
60-00-4D, EDTA, divinyl sulfone-polymer carrier conjugates
67-43-6D, DTPA, divinyl sulfone-polymer carrier conjugates
70-51-9D, Desferrioxamine B, divinyl sulfone-polymer carrier conjugates
142-73-4D, Iminodiacetic acid, divinyl sulfone-polymer carrier conjugates
9001-34-7D, Galactosidase, divinyl sulfone-polymer carrier conjugates
9001-37-0D, Glucose oxidase, divinyl sulfone-polymer carrier conjugates
9001-78-9D, Alkaline phosphatase, divinyl sulfone-polymer carrier conjugates 9002-13-5D, Urease, divinyl sulfone-polymer carrier conjugates 9002-89-5D, Polyvinyl alcohol, conjugates with divinyl sulfone and mols. 9003-01-4D, Polyacrylic acid, salts, conjugates with divinyl sulfone and mols. 9003-99-0D, Peroxidase, divinyl

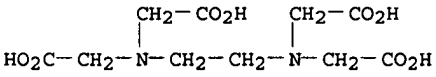
sulfone-polymer carrier conjugates 9004-34-6D, Cellulose, derivs., conjugates with divinyl sulfone and mols. 9004-54-0D, Dextran, derivs., conjugates with divinyl sulfone and mols. 9004-62-0D, Hydroxyethylcellulose, conjugates with divinyl sulfone and mols. 9004-64-2D, Hydroxypropylcellulose, conjugates with divinyl sulfone and mols. 9005-25-8D, Starch, derivs., conjugates with divinyl sulfone and mols. 9005-27-0D, Hydroxyethyl starch, derivs., conjugates with divinyl sulfone and mols. 9005-79-2D, Glycogen, conjugates with divinyl sulfone and mols. 9012-36-6D, Agarose, conjugates with divinyl sulfone and mols. 9013-20-1D, Streptavidin, divinyl sulfone-polymer carrier conjugates 9044-05-7D, Carboxymethyldextran, derivs., conjugates with divinyl sulfone and mols. 9049-76-7D, Hydroxypropyl starch, derivs., conjugates with divinyl sulfone and mols. 25322-68-3D, conjugates with divinyl sulfone and mols. 27251-32-7D, Polyallyl alcohol, conjugates with divinyl sulfone and mols.
RL: ANST (Analytical study)
(for reagents)

IT 1333-74-0D, Hydrogen, radioactive 7439-89-6, Iron, uses 7439-91-0, Lanthanum, uses 7439-96-5, Manganese, uses 7439-97-6, Mercury, uses 7440-02-0, Nickel, uses 7440-05-3D, Palladium, radioactive 7440-19-9D, Samarium, radioactive 7440-22-4, Silver, uses 7440-26-8D, Technetium, radioactive 7440-44-0D, Carbon, radioactive 7440-45-1, Cerium, uses 7440-48-4, Cobalt, uses 7440-50-8, Copper, uses 7440-53-1, Europium, uses 7440-54-2, Gadolinium, uses 7440-55-3, Gallium, uses 7440-57-5, Gold, uses 7440-65-5D, Yttrium, radioactive 7440-66-6, Zinc, uses 7440-69-9D, Bismuth, radioactive 7440-74-6, Indium, uses 7553-56-2D, Iodine, radioactive 7704-34-9D, Sulfur, radioactive 7723-14-0D, Phosphorus, radioactive
RL: ANST (Analytical study)
(substance labeled with, conjugates with divinyl sulfone-polymer carrier, for reagents)

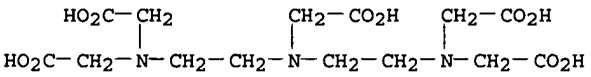
IT 77-77-0D, Divinyl sulfone, conjugates
RL: ANST (Analytical study)
(with polymer carrier and mols. for reagents)

IT **60-00-4D**, EDTA, divinyl sulfone-polymer carrier conjugates
67-43-6D, DTPA, divinyl sulfone-polymer carrier conjugates
RL: ANST (Analytical study)
(for reagents)

RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 27 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:455979 HCAPLUS
DN 117:55979
ED Entered STN: 08 Aug 1992
TI Multicomponent chelating agents for use in chemotherapy and diagnosis
IN Wrasidlo, Wolfgang J.; Silveira, Michael H.
PA Brunswick Corp., USA
SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K043-00
ICS C07K017-00; C07D291-00; C07F005-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 8
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 9205804 A1 19920416 WO 1991-US7016 19910926 <--
W: CA, JP
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE
CA 2092434 AA 19920328 CA 1991-2092434 19910926 <--
EP 554358 A1 19930811 EP 1991-919986 19910926 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
JP 06505795 T2 19940630 JP 1991-518342 19910926 <--
PRAI US 1990-588816 19900927 <--
WO 1991-US7016 19910926 <--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9205804	ICM	A61K043-00
	ICS	C07K017-00; C07D291-00; C07F005-00

AB A metal ion-chelating agent comprises a 1st mol. component which is a chelate having a high affinity for metal ions and a high stability (Ks), linked to .gtoreq.1 (preferably 2) 2nd mol. component which is a chelate having a low Ks and the ability to undergo rapid metal exchange. Preferably the 2nd component chelates a metal (e.g radioelement) and is then chelated to the 1st component in such a way as to form coordinate bonds. The above agents are highly stable after binding 1 or more metals. The chelating agent-metal complexes may be conjugated to target cell-binding proteins to cause localized cytotoxicity or for in vitro or in vivo diagnosis. Thus, 2 mols. diethylene triamine pentaacetic acid were coupled to 1 mol. 1,4,10,13-tetraoxa-7,16-diazacyclooctadecane, and the product was complexed with PbO2 and then conjugated to monoclonal antibody 9.2.27. The above conjugate inhibited melanoma cells in vitro and bound specifically to melanoma tumors in vivo.

ST chelating agent chemotherapy; cytotoxin chelating agent binding protein; neoplasm inhibitor lead chelate antibody; radioelement chelate antibody conjugate cytotoxin

IT Carbonyls
Cryptates
Organometallic compounds
RL: BIOL (Biological study)
(chelating agents containing, chemotherapy and radiodiagnosis in relation to)

IT Alkaline earth metals
Radioelements, biological studies
Rare earth metals, biological studies
Transition metals, biological studies
RL: BIOL (Biological study)
(chelating agents for, chemotherapy and radiodiagnosis in relation to)

IT Antibodies
RL: BIOL (Biological study)
(conjugates with metal chelates, as cytotoxins, stable multicomponent chelating agents in)

IT Azo compounds
RL: BIOL (Biological study)
(crown, chelating agents containing, chemotherapy and radiodiagnosis in relation to)

IT **Fluorescent substances**
(lanthanides, chelating agents for, chemotherapy and radiodiagnosis in relation to)

IT Mammal
(localized cytotoxicity in, metal chelate-binding protein conjugates for)

IT Neoplasm inhibitors
(metal chelate-binding protein conjugates as, stable multicomponent chelating agents in)

IT **Chelating agents**
(multicomponent, highly stable, chemotherapy and radiodiagnosis in relation to)

IT Metals, miscellaneous
RL: REM (Removal or disposal); PROC (Process)
(removal of, multicomponent chelating agents for)

IT Cyclic compounds
RL: BIOL (Biological study)
(cage, chelating agents containing, chemotherapy and radiodiagnosis in relation to)

IT Proteins, specific or class
RL: BIOL (Biological study)
(conjugates, with metal chelates, as cytotoxins, stable multicomponent chelating agents in)

IT Crown compounds
RL: BIOL (Biological study)

(ethers, chelating agents containing, chemotherapy and radiodiagnosis in relation to)
IT Pharmaceutical dosage forms
(injections, i.p., cytotoxins in, metal chelate-target cell-binding protein conjugates as)
IT Pharmaceutical dosage forms
(injections, i.v., cytotoxins in, metal chelate-target cell-binding protein conjugates as)
IT Pharmaceutical dosage forms
(injections, s.c., cytotoxins in, metal chelate-target cell-binding protein conjugates as)
IT Proteins, specific or class
RL: BIOL (Biological study)
(ligand-binding, conjugates, with metal chelates, as cytotoxins, stable multicomponent chelating agents in)
IT Neoplasm inhibitors
(melanoma, metal chelate-antibody conjugates as)
IT Antibodies
RL: BIOL (Biological study)
(monoclonal, conjugates with metal chelates, as cytotoxins, stable multicomponent chelating agents in)
IT Thiols, biological studies
RL: BIOL (Biological study)
(poly-, chelating agents containing, chemotherapy and radiodiagnosis in relation to)
IT Porphyrins
RL: BIOL (Biological study)
(polymers, chelating agents containing, chemotherapy and radiodiagnosis in relation to)
IT Pharmaceutical dosage forms
(topical, cytotoxins in, metal chelate-target cell-binding protein conjugates as)
IT 630-08-0
RL: BIOL (Biological study)
(carbonyls, chelating agents containing, chemotherapy and radiodiagnosis in relation to)
IT **60-00-4**, Edta, biological studies **67-43-6**, Diethylene triamine pentaacetic acid 74-61-3, 2,3-Dimercapto-1-propanesulfonic acid 304-55-2 23978-55-4
RL: BIOL (Biological study)
(chelating agents containing, chemotherapy and radiodiagnosis in relation to)
IT 14913-49-6, Bismuth-212, biological studies 15092-94-1, Lead-212, biological studies
RL: BIOL (Biological study)
(chelating agents for, chemotherapy and radiodiagnosis in relation to)
IT 7439-92-1, Lead, biological studies
RL: RCT (Reactant); RACT (Reactant or reagent)
(chelation of, crown ether chelating agent for)
IT **90359-20-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to crown ether)
IT 124804-84-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogenation of)
IT 23978-09-8 31250-18-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(lead chelation by)
IT 142-79-0P, Heptanedioyl dichloride 42031-79-8P 42031-80-1P 42031-81-2P 42031-82-3P 42031-83-4P 42133-16-4P 44995-78-0P 49811-26-9P 49811-28-1P 49811-29-2P 49811-30-5P 49811-31-6P 49811-33-8P 49811-34-9P 62987-14-8P 124804-85-9P 142524-83-2P 142524-84-3P 142524-85-4P 142524-86-5P 142524-87-6P 142524-89-8P 142524-91-2P 142524-94-5P 142524-97-8P 142542-68-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in chelating agent preparation)
IT 142524-80-9P 142524-81-0P 142524-82-1P 142524-88-7P 142524-95-6P 142524-98-9P 142524-99-0P
RL: PREP (Preparation)
(preparation of, as chelating agent)
IT 42425-27-4P
RL: PREP (Preparation)
(preparation of, as chelating agent component)
IT 142524-87-6DP, monoclonal antibody conjugates 142524-90-1DP, monoclonal antibody conjugates 142524-90-1P 142524-98-9DP, monoclonal antibody

conjugates 142524-99-0DP, monoclonal antibody conjugates
142542-68-5DP, monoclonal antibody conjugates
RL: PREP (Preparation)
(preparation of, as chelating agent, cytotoxicity and diagnosis in relation to)

IT 142524-80-9DP, monoclonal antibody conjugates 142524-82-1DP, monoclonal antibody conjugates
RL: PREP (Preparation)
(preparation of, as chelating agent, cytotoxicity in relation to)

IT 142524-95-6DP, monoclonal antibody conjugates, radioelement complexes
RL: PREP (Preparation)
(preparation of, cytotoxicity in relation to)

IT 142524-81-0DP, lead complexes, monoclonal antibody conjugates
RL: PREP (Preparation)
(preparation of, melanoma inhibitory activity of)

IT 142524-93-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with crown ether amine)

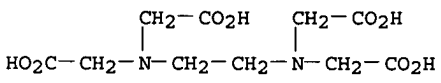
IT 142524-92-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diamino crown ether)

IT 142524-96-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diethylene triamine pentaacetic acid)

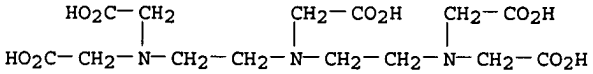
IT 2418-14-6, Dimercaptosuccinic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with tetraoxadiazacyclooctadecane)

IT **60-00-4**, Edta, biological studies **67-43-6**, Diethylene triamine pentaacetic acid
RL: BIOL (Biological study)
(chelating agents containing, chemotherapy and radiodiagnosis in relation to)

RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)

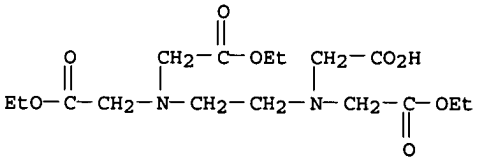


RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



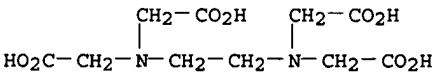
IT **90359-20-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, to crown ether)

RN 90359-20-9 HCAPLUS
CN Glycine, N-[2-[bis(2-ethoxy-2-oxoethyl)amino]ethyl]-N-(carboxymethyl)-, 1-ethyl ester (9CI) (CA INDEX NAME)



L41 ANSWER 28 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:62077 HCAPLUS
DN 116:62077
ED Entered STN: 21 Feb 1992
TI The stabilizing effect of complexing agents on sodium perborate solutions
AU Kelkenberg, Heike; Lueders, Harald

CS Huels A.-G., Marl, Germany
SO Tenside, Surfactants, Detergents (1991), 28(6), 434-40
CODEN: TSDEES; ISSN: 0932-3414
DT Journal
LA German
CC 46-5 (Surface Active Agents and Detergents)
AB The complexing of Mn, Fe, Zn, and especially Cu was studied as a means of stabilizing Na perborate in laundry detergent compns. In addition to the traditional amino acid and P acid chelating agents, the use of biurets and protein hydrolyzates was recommended, with the latter showing good ecol. aspects.
ST perborate stabilizer complexing agent; laundry detergent perborate stabilization; protein hydrolyzate complexing metal; biuret deriv complexing metal
IT **Chelating agents**
(for stabilization of sodium perborate in laundry detergent compns.)
IT Bleaching agents
Decolorizing agents
Fluorescent brighteners
(sodium perborate, stabilizing agents for, in laundry detergent compns)
IT Protein hydrolyzates
RL: USES (Uses)
(stabilizers, for sodium perborate in laundry detergent compns.)
IT 7439-89-6, Iron, reactions 7439-96-5, Manganese, reactions 7440-50-8, Copper, reactions 7440-66-6, Zinc, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(chelation of, for stabilization of sodium perborate in laundry detergent compns., agents for)
IT **64-02-8** 108-19-0D, Biuret, derivs. 2809-21-4, Hydroxyethanediphosphonic acid 5064-31-3 16177-21-2, Sodium glutamate 51981-21-6 61792-09-4 68155-78-2 119565-62-7 119710-96-2
RL: USES (Uses)
(stabilizers, for sodium perborate in laundry detergent compns.)
IT 11138-47-9, Sodium perborate
RL: USES (Uses)
(stabilizing agents for, in laundry detergent compns)
IT **64-02-8**
RL: USES (Uses)
(stabilizers, for sodium perborate in laundry detergent compns.)
RN 64-02-8 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt (9CI) (CA INDEX NAME)



●4 Na

L41 ANSWER 29 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:16803 HCAPLUS
DN 116:16803
ED Entered STN: 24 Jan 1992
TI Aluminum interrupts the formation of alkaline-ribonuclease-inhibitor complex from bovine brain
AU Cho, Sung Woo; Kim, Geum Yi
CS Coll. Med., Univ. Ulsan, Seoul, 138-040, S. Korea
SO European Journal of Biochemistry (1991), 202(1), 107-11
CODEN: EJBCAI; ISSN: 0014-2956
DT Journal
LA English
CC 4-3 (Toxicology)
AB The effect of aluminum on alkaline RNase (RNase) and RNase inhibitor, purified from bovine brain, was investigated. Incubation of alkaline RNase with aluminum interrupted the binding of RNase inhibitor to alkaline RNase. A stoichiometry of 1:1 for the binding of aluminum to brain alkaline RNase was estimated, whereas no aluminum was found to be bound to the RNase inhibitor. Aluminum-bound alkaline RNase, however, retained a full alkaline RNase activity. None of the enzyme-bound aluminum was dissociated by dialysis against 50 mM Hepes, pH 7.0, at 4.degree. for 24 h. Citrate, EDTA, NaF, and apotransferrin protected the alkaline RNase against aluminum binding.

Aluminum did not bind to the incubated alkaline RNase-inhibitor complex, suggesting that aluminum might compete with RNase inhibitor for the binding site. However, the data from chemical modification and spectroscopic studies indicate that it is also highly possible that aluminum binding to the enzyme induces conformational changes at or near the inhibitor-binding site, which subsequently interrupt the binding of RNase inhibitor to alkaline RNase. These results suggest that the accumulation of aluminum in brain might affect the regulation of RNA metabolism

ST alk RNase inhibitor complex brain aluminum

IT Brain, composition
(alkaline RNase-inhibitor complex from, formation of, aluminum effect on)

IT **Chelating agents**
(for aluminum, aluminum binding to alkaline RNase from brain response to)

IT **Fluorescence**
Ultraviolet and visible spectra
(of aluminum-alkaline RNase complex, formation of enzyme-inhibitor complex from brain in relation to)

IT Transferrins
RL: BIOL (Biological study)
(apo-, aluminum binding to alkaline RNase from brain response to human)

IT 9001-99-4
RL: BIOL (Biological study)
(RNase inhibitor interaction with, from brain, aluminum effect on)

IT 39369-21-6, Nuclease inhibitor
RL: BIOL (Biological study)
(RNase-inhibiting, alkaline RNase interaction with, from brain, aluminum effect on)

IT **60-00-4**, EDTA, biological studies 77-92-9, biological studies
7681-49-4, Sodium fluoride, biological studies
RL: BIOL (Biological study)
(aluminum binding to alkaline RNase from brain response to)

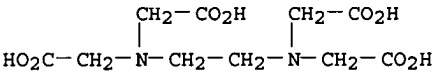
IT 7429-90-5, Aluminum, biological studies
RL: BIOL (Biological study)
(formation of alkaline RNase-inhibitor complex from brain response to)

IT 56-87-1, Lysine, biological studies 71-00-1, Histidine, biological studies
RL: BIOL (Biological study)
(modification of residues of, of alkaline RNase, aluminum binding in relation to)

IT **60-00-4**, EDTA, biological studies
RL: BIOL (Biological study)
(aluminum binding to alkaline RNase from brain response to)

RN 60-00-4 HCAPLUS

CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 30 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1991:651635 HCAPLUS

DN 115:251635

ED Entered STN: 14 Dec 1991

TI Using chelator-matrix conjugates to separate labeled compound from composition containing bound and unbound labeling reagents

IN Subramanian, Ramaswamy

PA AKZO N. V., Neth.

SO PCT Int. Appl., 28 pp.
CODEN: PIXXD2

DT Patent

LA English

IC ICM G01N033-532
ICS G01N033-533; G01N033-534

CC 9-3 (Biochemical Methods)

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9106008	A1	19910502	WO 1990-US5772	19901010	<--
	W: AU, CA, DK, FI, JP, KR					
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE					
	US 5244816	A	19930914	US 1989-419871	19891011	<--
	ZA 9008095	A	19911127	ZA 1990-8095	19901009	<--
	AU 9065471	A1	19910516	AU 1990-65471	19901010	<--

AU 656717	B2	19950216			
EP 495878	A1	19920729	EP 1990-915696	19901010	<--
EP 495878	B1	19961127			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE					
JP 05503354	T2	19930603	JP 1990-514572	19901010	<--
JP 3078575	B2	20000821			
AT 145560	E	19961215	AT 1990-915696	19901010	<--
ES 2097156	T3	19970401	ES 1990-915696	19901010	<--
FI 9201579	A	19920409	FI 1992-1579	19920409	<--
DK 9200488	A	19920410	DK 1992-488	19920410	<--
PRAI US 1989-419871	A	19891011	<--		
WO 1990-US5772	A	19901010	<--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9106008	ICM	G01N033-532
	ICS	G01N033-533; G01N033-534

AB A method for separating unbound labeling reagent from a composition containing bound and unbound labeling reagent comprises contacting the composition with a chelator-matrix conjugate capable of binding the unbound labeling reagent. In the method, the labeling reagent is bound to peptide, protein, IgG, fragment of IgG, nucleic acid, or oligo- or polynucleotide; the labeling reagent is radioactive, fluorescent, luminescent, or paramagnetic; the chelator is a polyaminopolycarboxylate or a cyclopolyazacarboxylate; the matrix is a particulate (including its modified form), a membrane, or a vessel comprising an inside surface (e.g. syringe). In addition, a 2nd vessel comprising a chelator-IgG conjugate can be involved in the separation; a vessel comprising a plurality of chambers of which 1 chamber is conjugated with chelator and the 2nd is conjugated with chelator-IgG can also be used in the separation Thus, human serum albumin (HSA) was mixed with excess diethylenetriaminepentaacetic acid (DTPA) dianhydride; the mixture was passed through a C-50 column; the HSA-DTPA solution was then mixed with polystyrene beads. After washing with distilled water, DTPA-labeled HSA beads were obtained. The HSA-DTPA beads removed 111In from an acetate/citrate buffer. Washing with 1 M HCl removed all radioactivity, enabling the HSA-DTPA beads to be reused.

ST chelator conjugate sepn label compd; DTPA albumin conjugate indium removal

IT Containers
Membranes
Particles
Syringes
(as matrix, conjugates with chelator, for removing free labeling reagent from bound labeling reagent)

IT Radioelements, preparation
RL: PREP (Preparation)
(biomol. labeled with, separation of, from free labeling reagent, by chelator-matrix conjugate)

IT **Chelating agents**
(conjugates with matrix, for removing free labeling reagent from composition containing bound and unbound labeling reagent)

IT Antibodies
RL: ANST (Analytical study)
(indium-111-labeled, free indium-111 separation from, LiLo-conjugated amine-derivatized beads for)

IT Nucleic acids
RL: ANST (Analytical study)
(labeled, separation of, from free labeling reagent, by chelator-matrix conjugate)

IT Molecules
(biochem., labeled, separation of, from free labeling reagent, by chelator-matrix conjugate)

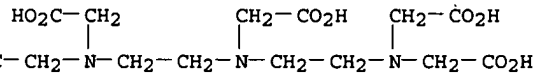
IT Albumins, compounds
RL: ANST (Analytical study)
(conjugates, with polystyrene beads and DTPA, for free indium-111 separation from bound reagent)

IT **Indicators**
(**fluorescent**, biomol. labeled with, separation of, from free labeling reagent, by chelator-matrix conjugate)

IT Immunoglobulins
Peptides, biological studies
Proteins, specific or class
RL: PROC (Process)
(labeled, separation of, from free labeling reagent, by chelator-matrix conjugate)

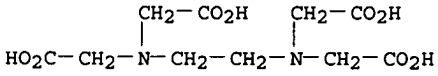
IT Indicators
(luminescent, biomol. labeled with, separation of, from free labeling

reagent, by chelator-matrix conjugate)
IT Nucleotides, polymers
RL: PROC (Process)
(oligo-, labeled, separation of, from free labeling reagent, by chelator-matrix conjugate)
IT Magnetic substances
(para-, biomol. labeled with, separation of, from free labeling reagent, by chelator-matrix conjugate)
IT Nucleotides, polymers
RL: PROC (Process)
(poly-, labeled, separation of, from free labeling reagent, by chelator-matrix conjugate)
IT Amino acids, compounds
RL: ANST (Analytical study)
(polycarboxylic poly-, conjugates, with matrix, for removing free labeling reagent from bound labeling reagent)
IT 9003-53-6D, Polystyrene, DTPA conjugates
RL: ANST (Analytical study)
(beads, for removing free indium-111 from composition containing bound and unbound labeling reagent)
IT 134439-56-8D, LiLo, conjugates with amine-derivatized beads
177219-37-3D, IDAC 2, conjugates with amine-derivatized beads
RL: ANST (Analytical study)
(for removing free indium-111 from composition containing bound and unbound reagent)
IT **67-43-6D**, human serum albumin and polystyrene beads conjugates
RL: ANST (Analytical study)
(free indium-111 separation from bound reagent with)
IT 15750-15-9D, antibody-DTPA conjugates chelates
RL: ANST (Analytical study)
(free indium-111 separation from, LiLo-conjugated amine-derivatized beads for)
IT 23911-26-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with human serum albumin)
IT 15750-15-9, Indium-111, uses and miscellaneous
RL: USES (Uses)
(removal of free, from bound radiolabel, by chelator-matrix conjugates)
IT **67-43-6D**, human serum albumin and polystyrene beads conjugates
RL: ANST (Analytical study)
(free indium-111 separation from bound reagent with)
RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)

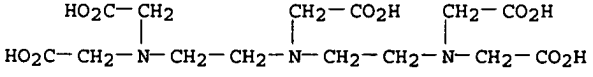


L41 ANSWER 31 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1991:470038 HCAPLUS
DN 115:70038
ED Entered STN: 23 Aug 1991
TI The Maillard reaction of DNA with D-fructose 6-phosphate
AU Morita, Junji; Kashimura, Naoki
CS Dep. Food Sci., Doshisha Women's Coll. Lib. Arts, Kyoto, 602, Japan
SO Agricultural and Biological Chemistry (**1991**), 55(5), 1359-66
CODEN: ABCHA6; ISSN: 0002-1369
DT Journal
LA English
CC 17-2 (Food and Feed Chemistry)
AB The Maillard reaction of DNA with ketoses was investigated. Several days of incubation of D-fructose-6-phosphate with deoxyribonucleotides or with polymer DNA in an aqueous buffer resulted in the formation of chromophores and fluorophores. Aminoiguanidine and sodium cyanoborohydride inhibited the formation of fluorophores. Transition metal ions, such as Cu2+, Fe3+, Fe2+, or Mn2+, promoted the formation of chromophores and fluorophores. Metal-chelating agents such as DETAPAC, citrate, and Desferal inhibited the formation of fluorophores. Superoxide dismutase and catalase also inhibited the formation of fluorophores. The transition metal ion-catalyzed autoxidn. of D-fructose 6-phosphate or of the Heyns rearrangement products are thought to be partially involved in the glycation of DNA and subsequent formation of chromophores and of

fluorophores.
ST Maillard reaction DNA sugar phosphate; fluorescence Maillard product GMC fructose phosphate
IT Carbohydrates and Sugars, reactions
Monosaccharides
RL: RCT (Reactant); RACT (Reactant or reagent)
(Maillard reactions of, with DNA)
IT Deoxyribonucleic acids
RL: RCT (Reactant); RACT (Reactant or reagent)
(Maillard reactions of, with sugars and sugar phosphates)
IT **Chelating agents**
(fluorescence from dGMP-fructose-6-phosphate response to)
IT Chromophores and Chromophoric systems
Fluorescent substances
(formation of, in DNA-sugar phosphate Maillard reaction, factors affecting)
IT Maillard reaction
(of DNA with sugars and sugar phosphate)
IT Carbohydrates and Sugars, esters
RL: RCT (Reactant); RACT (Reactant or reagent)
(phosphates, Maillard reactions of, with DNA)
IT 50-69-1, D-Ribose 50-99-7, D-Glucose, biological studies 56-73-5, D-Glucose 6-phosphate 57-48-7, D-Fructose, reactions 58-86-6, D-Xylose, biological studies 59-23-4, D-Galactose, biological studies 59-56-3 488-69-7 643-13-0, D-Fructose 6-phosphate 1114-34-7, D-Lyxose 3458-28-4, D-Mannose 3672-15-9, D-Mannose 6-phosphate 4300-28-1, D-Ribose 5-phosphate 6665-00-5, D-Galactose 6-phosphate 10323-20-3, D-Arabinose
RL: RCT (Reactant); RACT (Reactant or reagent)
(Maillard reaction of, with DNA)
IT 365-07-1, TMP 653-63-4, DAMP 902-04-5, DGMP
RL: RCT (Reactant); RACT (Reactant or reagent)
(Maillard reaction of, with fructose 6-phosphate)
IT 69-65-8, D-Mannitol 141-53-7, Sodium formate 532-32-1, Sodium benzoate 7681-11-0, Potassium iodide, biological studies
RL: BIOL (Biological study)
(fluorescence from dGMP-fructose 6-phosphates response to)
IT **60-00-4**, EDTA, biological studies **67-43-6**, DETAPAC 77-92-9, Citric acid, biological studies 79-17-4, Aminoguanidine 138-14-7, Desferal 7439-89-6, Iron, biological studies 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-02-0, Nickel, biological studies 7440-48-4, Cobalt, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7447-39-4, Cupric chloride, biological studies 7646-79-9, Cobalt chloride, biological studies 7705-08-0, Ferric chloride, biological studies 7718-54-9, Nickel chloride, biological studies 7720-78-7, Ferrous sulfate 7733-02-0, Zinc sulfate 7785-87-7, Manganese sulfate 7786-30-3, Magnesium chloride, biological studies 9001-05-2, Catalase 9054-89-1, Superoxide dismutase 25895-60-7, Sodium cyanoborohydride
RL: BIOL (Biological study)
(fluorescence from dGMP-fructose-6-phosphate response to)
IT **60-00-4**, EDTA, biological studies **67-43-6**, DETAPAC
RL: BIOL (Biological study)
(fluorescence from dGMP-fructose-6-phosphate response to)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



L41 ANSWER 32 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1990:548402 HCAPLUS
DN 113:148402
ED Entered STN: 27 Oct 1990
TI Interligand metal transfer as reporter mechanism for biospecific reaction, its use in immunoassays for drugs and hormones, and preparation of donor chelating agents
IN Hale, Ron L.; Wieder, Irwin
PA Baxter International, Inc., USA
SO U.S., 23 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM G01N033-566
ICS G01N021-76
NCL 436501000
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 1, 2, 78
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4925804	A	19900515	US 1986-875449	19860617 <--
PRAI US 1986-875449		19860617 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 4925804	ICM	G01N033-566
	ICS	G01N021-76
	NCL	436501000

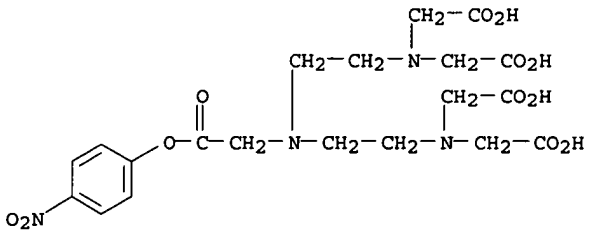
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Methods using a new reporter mechanism for biospecific reactions are disclosed. This mechanism involves interligand metal ion transfer in which a metal ion is directly transferred from one chelate complex to another following the occurrence of the biospecific reaction. The second chelate complex is sep. from, and detectably different than, the first chelate complex. In preferred embodiments of this invention the detectable difference is a difference in fluorescence, such as an increase or decrease which occurs as a result of the formation of the second chelate. In further preferred embodiments the difference in fluorescence is detected using fluorescent background rejection methods. Thus, a fluorometric immunoassay for total thyroxine was performed using 8-anilino-1-naphthalenesulfonic acid, I (as donating chelate), and 4-(2,4,6-trimethoxyphenyl)pyridine-2,6-dicarboxylic acid (as 2nd, or receiving, ligand). A standard curve for 1.0-20.0 .mu.g thyroxine/dL is shown. I was prepared from thyroxine Me ester.HCl and isocyanate II. Immunoassays, and preparation of appropriate chelating agents, for cortisol and theophylline determination are also described.
ST biochem analysis interligand metal transfer; terbium transfer thyroxine fluorescence immunoassay; cortisol fluorescence immunoassay metal transfer; theophylline fluorescence immunoassay metal transfer
IT **Fluorescent substances**
(chelate as, metal transfer to second ligand from, in reporter mechanism for biospecific reaction)
IT Antibodies
RL: ANST (Analytical study)
(conjugates with ligand, in fluorescence immunoassay with interligand metal transfer)
IT Metals, reactions
RL: PRP (Properties)
(interligand transfer of, in reporter mechanism for biospecific reaction)
IT **Chelating agents**
(metal transfer between, in reporter mechanism for biospecific reaction)
IT Analysis
(biochem., with interligand metal transfer in reporter mechanism for biospecific reaction)
IT Immunochemical analysis
(fluorescence immunoassay, with interligand metal transfer)
IT Spectrochemical analysis
(fluorometric, interligand metal transfer in, in reporter mechanism for

biospecific reaction)
IT 50-23-7, Cortisol 51-48-9, Thyroxine, analysis 58-55-9, Theophylline, analysis 6893-02-3, Triiodothyronine
RL: ANT (Analyte); ANST (Analytical study)
(determination of, by fluorescence immunoassay with interligand metal transfer)
IT 82-76-8, 8-Anilino-1-naphthalenesulfonic acid 129235-80-9 129499-18-9
RL: ANST (Analytical study)
(in thyroxine determination by fluorescence immunoassay with interligand metal transfer)
IT 129235-81-0 129235-82-1
RL: ANST (Analytical study)
(in triiodothyronine determination by fluorescence immunoassay with interligand metal transfer)
IT 7440-27-9, Terbium, biological studies
RL: PRP (Properties)
(interligand transfer of, in fluorescence immunoassays)
IT 129499-26-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, for chelating agent for theophylline determination by fluorescence immunoassay with interligand metal transfer)
IT 5689-65-6P 80927-46-4P 83463-12-1P 106023-85-2P 106023-87-4P 106023-88-5P 106023-99-8P 106024-00-4P 116241-46-4P 116266-55-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, for chelating agent preparation for theophylline determination by fluorescence immunoassay with interligand metal transfer)
IT 129499-20-3P 129499-22-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, for chelating agent preparation for triiodothyronine determination by fluorescence immunoassay with interligand metal transfer)
IT 129499-17-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as chelating agent in thyroxine determination by fluorescence immunoassay with interligand metal transfer)
IT 129499-19-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as chelating agent in triiodothyronine determination by fluorescence immunoassay with interligand metal transfer)
IT 129499-23-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as chelating agent, for triiodothyronine determination by fluorescence immunoassay with interligand metal transfer)
IT 106023-97-6P 116241-47-5P 116241-48-6P 129499-27-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for chelating agent for theophylline determination by fluorescence immunoassay with interligand metal transfer)
IT 129499-27-0DP, anti-theophylline antibody conjugates
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for theophylline determination by fluorescence immunoassay with interligand metal transfer)
IT 23911-25-3 23911-26-4 106023-96-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, for chelating agent preparation for theophylline determination by fluorescence immunoassay with interligand metal transfer)
IT **129499-24-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, for chelating agent preparation for triiodothyronine determination by fluorescence immunoassay with interligand metal transfer)
IT 43188-86-9 51857-17-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in chelating agent preparation, for triiodothyronine determination by fluorescence immunoassay with interligand metal transfer)
IT 100-52-7, Benzaldehyde, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with acetylfuran)
IT 55-06-1 70019-78-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aryl isothiocyanate derivative)
IT 1192-62-7, 2-Acetylfuran
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzaldehyde)
IT 5438-71-1, Theophylline-8-butyric acid
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with iso-Bu chloroformate)
IT 543-27-1, Isobutyl chloroformate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with theophylline derivative)
IT 95678-49-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with thyroxine Me ester hydrochloride)
IT **129499-24-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, for chelating agent preparation for triiodothyronine determination by fluorescence immunoassay with interligand metal transfer)
RN 129499-24-7 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]-, 1-(4-nitrophenyl) ester (9CI) (CA INDEX NAME)



L41 ANSWER 33 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1988:34507 HCAPLUS
DN 108:34507
ED Entered STN: 06 Feb 1988
TI Process for preparing antibody complexes through amino groups with retention of antigen-binding ability
IN Endo, Noriaki; Umemoto, Naoji; Kato, Yoshinori; Hara, Takeshi
PA Teijin Ltd. , Japan
SO PCT Int. Appl., 120 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM C07K015-12
ICS C07K003-04; C07K003-08; C07K017-10; C12Q001-00; A61K039-395; G01N033-532
CC 9-14 (Biochemical Methods)
Section cross-reference(s): 15, 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8704171	A1	19870716	WO 1986-JP628	19861211 <--
	W: US				
	RW: BE, CH, DE, FR, GB, IT, SE				
	JP 62228025	A2	19871006	JP 1986-154200	19860702 <--
PRAI	JP 1985-293003		19851227 <--		
	JP 1986-154200		19860702 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 8704171	ICM	C07K015-12
	ICS	C07K003-04; C07K003-08; C07K017-10; C12Q001-00; A61K039-395; G01N033-532

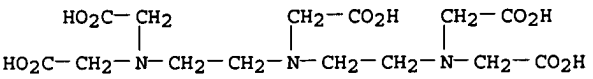
AB A process for preparing an antibody complex for drug tissue targeting or disease diagnosis, etc. comprises modifying some of the amino groups of an antibody or its fragment with a reversible modifier for a proteinaceous amino group to reduce the the ability of the antibody to bind antigen, reacting the remaining amino groups of the antibody or the fragment with a compound having a functional group capable of reacting with an amino group, and then removing the reversible modifiers from the product. Anti-melanoma monoclonal antibody (ZME 018; IgG2a) in pH 9.0 Na borate-NaCl buffer containing 1 mM EDTA was treated with dimethylmaleic anhydride and then with N-acetylhomocysteinethiolactone for thio group introduction. The antibody derivative was reacted with activated thiopropyl Sepharose 4B at 4.degree. for 2 h to form a stationary phase for affinity chromatog.
ST affinity chromatog stationary phase antibody complex; drug antibody complex tissue targeting; diagnostic antibody label complex

IT Cryptococcus (fungus)
Melanoma
Mycobacterium
(antibody or monoclonal antibody to, complexes with neoplasm inhibitors or other substances, preparation of)
IT Bactericides, Disinfectants, and Antiseptics
Chelating agents
Fluorescent substances
Fungicides and Fungistats
Isotope indicators
Neoplasm inhibitors
Virucides and Virustats
Enzymes
Hormones
Toxins
RL: ANST (Analytical study)
(complexes with antibodies or monoclonal antibodies, crosslinking agents in)
IT Antibodies
RL: SPN (Synthetic preparation); PREP (Preparation)
(complexes with drugs or other substances, preparation of, crosslinking agents in)
IT Chromatography, column and liquid
(affinity, stationary phases, antibody-insol. carrier complexes as)
IT Antigens
RL: SPN (Synthetic preparation); PREP (Preparation)
(carcinoembryonic, antibody or monoclonal antibody to, complexes with neoplasm inhibitors or other substances, preparation of)
IT Diagnosis
(clin., labeled antibodies for)
IT Toxins
RL: ANST (Analytical study)
(cyto-, complexes with antibodies or monoclonal antibodies, crosslinking agents in)
IT Carboxylic acids, uses and miscellaneous
RL: SPN (Synthetic preparation); PREP (Preparation)
(halo, in preparation of antibody or monoclonal antibody complexes with neoplasm inhibitors or other substances)
IT Virus, animal
(herpes, antibody or monoclonal antibody to, complexes with neoplasm inhibitors or other substances, preparation of)
IT Antibodies
RL: SPN (Synthetic preparation); PREP (Preparation)
(monoclonal, complexes with drugs or other substances, preparation of, crosslinking agents in)
IT Mammary gland
(neoplasm, antibody or monoclonal antibody to, complexes with neoplasm inhibitors or other substances, preparation of)
IT 76-05-1, biological studies 108-30-5, biological studies 108-31-6, biological studies 141-46-8, 2-Hydroxyacetaldehyde 616-02-4, Citraconic anhydride 674-82-8 699-30-9, Tetrafluorosuccinic anhydride 766-39-2, Dimethylmaleic anhydride 1195-16-0, N-Acetylhomocysteinethiolactone 6118-51-0 6539-14-6, 2-Iminothiolane 35749-09-8 39028-27-8 60444-78-2 68181-17-9 80307-12-6 99815-04-0 112204-52-1
RL: ANST (Analytical study)
(in preparation of antibody or monoclonal antibody complexes with neoplasm inhibitors or other substances)
IT 53-16-7DP, Estrone, complexes with antibodies or monoclonal antibodies 54-85-3DP, Isoniazid, complexes with antibodies or monoclonal antibodies 59-05-2DP, Methotrexate, complexes with antibodies or monoclonal antibodies **67-43-6DP**, DTPA, complexes with antibodies or monoclonal antibodies 518-44-5DP, Fluorescin, complexes with antibodies or monoclonal antibodies 1404-00-8DP, Mitomycin, complexes with antibodies or monoclonal antibodies 2022-85-7DP, 5-Fluorocytosine, complexes with antibodies or monoclonal antibodies 9012-36-6DP, complexes with antibodies or monoclonal antibodies 9014-02-2DP, Neocarzinostatin, complexes with antibodies or monoclonal antibodies 9031-11-2DP, .beta.-Galactosidase, complexes with antibodies or monoclonal antibodies 10199-89-0DP, complexes with antibodies or monoclonal antibodies 33658-49-0DP, complexes with antibodies or monoclonal antibodies 59277-89-3DP, Acycloguanosine, complexes with antibodies or monoclonal antibodies 60285-92-9DP, complexes with antibodies or monoclonal antibodies 68517-67-9DP, Thiopropyl Sepharose 4B, complexes with antibodies or monoclonal antibodies **81677-64-7DP**, complexes with antibodies or monoclonal antibodies 112204-51-0DP, complexes with

antibodies or monoclonal antibodies
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, crosslinking agent in)

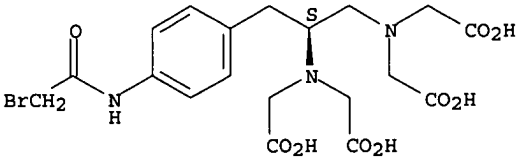
IT **67-43-6DP**, DTPA, complexes with antibodies or monoclonal antibodies **81677-64-7DP**, complexes with antibodies or monoclonal antibodies
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, crosslinking agent in)

RN 67-43-6 HCAPLUS
CN Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)



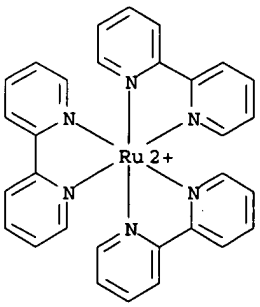
RN 81677-64-7 HCAPLUS
CN Glycine, N,N'-[(1S)-1-[[4-[(bromoacetyl)amino]phenyl]methyl]-1,2-ethanediyl]bis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



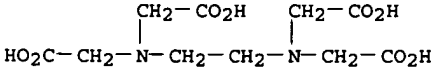
L41 ANSWER 34 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1982:591148 HCAPLUS
DN 97:191148
ED Entered STN: 12 May 1984
TI Photochemistry in porous colloidal silica particles
AU Wheeler, J.; Thomas, J. K.
CS Dep. Chem., Univ. Notre Dame, Notre Dame, IN, 46556, USA
SO Journal of Physical Chemistry (**1982**), 86(23), 4540-4
CODEN: JPCHAX; ISSN: 0022-3654
DT Journal
LA English
CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB A polymerized SiO2 particle was made and described, which forms colloidal solns. in water; the particle radius was measured as 500 .ANG. by electron microscopy and by dynamic light scatter. The probe Ru tris(bipyridyl), Ru(II), immediately associated with the surface of the colloid and showed both spectroscopic and kinetic properties that were indicative of the SiO2-water interface. Incubation for several hours led to a greatly enhanced phosphorescence yield and lifetime for excited Ru(II), while the spectrum showed a marked blue shift with the appearance of 2 peaks .lambda. = 5730 and 6060 .ANG., in comparison to 1 at .lambda. = 6130 .ANG. on the SiO2 surface. The Ru(II) was bound very tightly to the SiO2 particle under these conditions. Solutes such as O2 and nitrobenzene that normally efficiently react with excited Ru(II) were unreactive in this system. However, photoinduced electron transfer occurred between excited Ru(II) and methylviologen MV2+, giving rise to MV+. The Ru(III) formed was readily repaired by electron-transfer agents such as EDTA and triethanolamine. The data indicated that Ru(II) was bound tightly and rigidly just below the SiO2-water interface. The polymerized SiO2 led to the largest yield of electron transfer or photoexcitation of Ru(II) and MV2+, when compared to water, Nalco silica (surface binding of Ru(II) only), and micellar sodium lauryl sulfate.
ST colloidal silica ruthenium complex photochem; bipyridine ruthenium silica photolysis phosphorescence; polymd silica ruthenium complex photochem
IT Electron exchange
(in ruthenium tris(bipyridyl) dichloride-methylviologen system, photolyzed in polymd silica)
IT **Fluorescence**
Phosphorescence
Photolysis
(of ruthenium tris(bipyridyl) dichloride in polymerized silica)

IT 4685-14-7
RL: USES (Uses)
(fluorescence quenching of ruthenium tris(bipyridyl) dichloride in polymerized silica by)
IT 98-95-3, properties 7782-44-7, properties
RL: PRP (Properties)
(fluorescence quenching of ruthenium tris(bipyridyl) dichloride in polymerized silica by)
IT 47503-76-4
RL: USES (Uses)
(fluorescence quenching of ruthenium tris(bipyridyl)dichloride in polymerized silica by)
IT 25239-55-8P
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in photolysis of ruthenium tris(bipyridine) dichloride-methylviologen system in polymerized silica)
IT **14323-06-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(photochem. of, in porous colloidal silica particles)
IT 7732-18-5, uses and miscellaneous
RL: USES (Uses)
(photolysis of methylviologen-ruthenium tris(dipyridyl) dichloride in)
IT 151-21-3, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(photolysis of methylviologen-ruthenium tris(dipyridyl) dichloride in)
IT **60-00-4**, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(photolysis of ruthenium tris(bipyridyl) chloride in polymerized silica containing)
IT 7631-86-9, uses and miscellaneous
RL: USES (Uses)
(polymerized, colloidal, photochem. of ruthenium tris(bipyridinium) dichloride in)
IT **14323-06-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(photochem. of, in porous colloidal silica particles)
RN 14323-06-9 HCAPLUS
CN Ruthenium(2+), tris(2,2'-bipyridine-.kappa.N1,.kappa.N1')-, dichloride, (OC-6-11)- (9CI) (CA INDEX NAME)



●2 Cl^-

IT **60-00-4**, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(photolysis of ruthenium tris(bipyridyl) chloride in polymerized silica containing)
RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)



L41 ANSWER 35 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1982:438275 HCAPLUS
DN 97:38275
ED Entered STN: 12 May 1984
TI Photoinduced electron transfer from polystyrene pendant tris(2,2'-bipyridyl)ruthenium(II) complex to methylviologen
AU Kaneko, Masao; Ochiai, Masahisa; Kinosita, Kazuhiko, Jr.; Yamada, Akira
CS Inst. Phys. Chem. Res., Wako, 351, Japan
SO Journal of Polymer Science, Polymer Chemistry Edition (1982), 20(4), 1011-19
CODEN: JPLCAT; ISSN: 0449-296X
DT Journal
LA English
CC 22-7 (Physical Organic Chemistry)
Section cross-reference(s): 38, 52, 72
AB The characteristics of the photoinduced electron transfer reaction from polystyrene pendant tris(2,2'-bipyridyl)ruthenium(II) complex [Ru(bpy)32+] to methylviologen (I) were studied. The rate constant, k1, from the excited state of the complex, Ru(bpy)32+, to I was determined for both the polymeric and monomeric complexes from the lifetime .tau. of Ru(bpy)32+* and the quenching rate of Ru(bpy)32+* by I. The polymer pendant Ru(bpy)32+* showed 3 kinds of .tau. components ranging from 7 to 474 ns., in contrast to the monomeric complex, which showed 1 component of 350 ns. k1 For both complexes were almost the same, .apprx.108 L/mol.s. The photoinduced electron transfer from solid-phase Ru(bpy)32+ to liquid-phase I was realized by utilizing the polymer complex, and the solid-liquid interphase reaction system is discussed.
ST electron transfer photochem bipyridylruthenium; methylviologen redn polymer bound ruthenium; kinetics oxidn ruthenium complex; lifetime excited ruthenium complex; redox mechanism ruthenium complex methylviologen; interphase interaction electron transfer
IT Electron exchange
(between methylviologen liquid and solid polystyrene bound bipyridylruthenium(II) complex)
IT Energy transfer
(in photochem. redox reaction of methylviologen with tris(bipyridyl)ruthenium(II) or bipyridylated polystyrene ruthenium(II) complexes)
IT **Fluorescence**
(of bipyridylated polystyrene ruthenium(II) complex)
IT Fluorescence quenching
(of bipyridylated polystyrene ruthenium(II) complex by methylviologen)
IT Ultraviolet and visible spectra
(of bipyridylated polystyrene ruthenium(II) complex or methylviologen radical cation)
IT Redox reaction
Reduction, photochemical
(of methylviologen with tris(bipyridyl)ruthenium(II) or bipyridylated polystyrene ruthenium(II) complexes, mechanism of)
IT Oxidation
(of triethanolamine by bipyridylated polystyrene ruthenium(III) complex)
IT Oxidation, photochemical
(of tris(bipyridyl)ruthenium(II) or bipyridylated polystyrene ruthenium(II) complex, mechanism of)
IT Electric potential
(photoinduced charge separation and solid-liquid interface utilizing polymer ruthenium complexes with subsequent hydrogen evolution and liquid phase containing methylviologen in relation to)
IT Kinetics of oxidation
(photochem., of bipyridylated polystyrene bound ruthenium(II) complex in presence of methylviologen)
IT Kinetics of reduction
(photochem., of methylviologen by rutheniumbipyridine complex or ruthenium(II) bound to bipyridylated polystyrene)
IT Kinetics of redox reaction
(photochem., of tris(bipyridyl)ruthenium(II) complex or ruthenium(II) bound to bipyridylated polystyrene and methylviologen)
IT Energy
(solar, photoinduced electron transfer from polystyrene pendant tris(bipyridyl)ruthenium(II) complex to methylviologen for conversion of)
IT 25239-55-8
RL: PRP (Properties)
(UV of)
IT **60-00-4**, uses and miscellaneous **139-33-3**
RL: PRP (Properties)

(effect of, on photochem. redox reaction of ruthenium complex with bipyridylated polystyrene and methylviologen)

IT 1333-74-0P, preparation
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in methylviologen liquid phase in photoinduced charge separation at solid-liquid interface using polymer ruthenium complex)

IT 22541-88-4D, bipyridylated polystyrene bound
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of triethanolamine by)

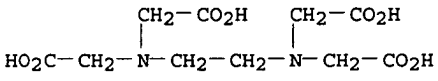
IT 102-71-6, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of, by ruthenium(II) bipyridylated polystyrene complex in presence of methylviologen)

IT 1910-42-5
RL: PRP (Properties)
(photoinduced electron transfer from tris(bipyridyl)ruthenium(II) or polystyrene pendant tris(bipyridyl)ruthenium(II) complexes, kinetics and mechanism of)

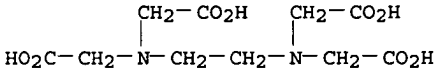
IT **15158-62-0** 22541-59-9D, bipyridylated polystyrene bound, properties
RL: PRP (Properties)
(photoinduced electron transfer from, to methylviologen, kinetics and mechanism of)

IT **60-00-4**, uses and miscellaneous **139-33-3**
RL: PRP (Properties)
(effect of, on photochem. redox reaction of ruthenium complex with bipyridylated polystyrene and methylviologen)

RN 60-00-4 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)- (9CI) (CA INDEX NAME)

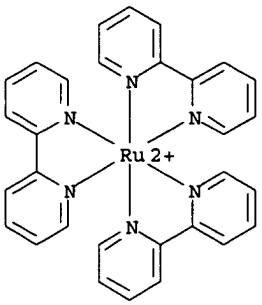


RN 139-33-3 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, disodium salt (9CI) (CA INDEX NAME)



IT **15158-62-0**
RL: PRP (Properties)
(photoinduced electron transfer from, to methylviologen, kinetics and mechanism of)

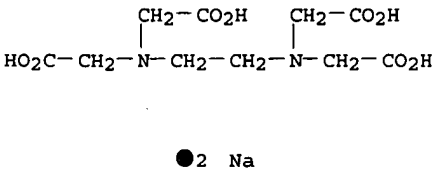
RN 15158-62-0 HCAPLUS
CN Ruthenium(2+), tris(2,2'-bipyridine-.kappa.N1,.kappa.N1')-, (OC-6-11)- (9CI) (CA INDEX NAME)



L41 ANSWER 36 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

Search done by Noble Jarrell

AN 1981:570879 HCAPLUS
DN 95:170879
ED Entered STN: 12 May 1984
TI Preventive effect of triphosphate on yellowing of white fabrics due to iron compounds in laundering
AU Yamauchi, Kazuko; Kobayashi, Shigeki
CS Fac. Home Econ., Sugiyama Jogakuen Univ., Nagoya, Japan
SO Sen'i Seihin Shohi Kagaku (1981), 22(7), 285-9
CODEN: SESKB9; ISSN: 0037-2072
DT Journal
LA Japanese
CC 39-9 (Textiles)
AB The effectiveness was determined of chelating and dispersing agents in preventing yellowing of white fabrics due to Fe compds. in the laundering process. The dispersing agents sodium salt of .beta.-naphthalenesulfonic acid-formalin condensate and triphosphate were effective in preventing yellowing whereas disodium ethylenediaminetetraacetate (I) [**139-33-3**] had no effect. The triphosphate presumably prevented deposition of Fe compds. onto the fabrics by dispersing the insol. Fe compds. into the laundering bath. The triphosphate promoted adsorption of optical whitening agents blended in the detergents onto the fabrics and thereby decreased visual yellowing. Both I and the naphthalenesulfonate-formalin condensate did not increase the amount of optical brightening agents deposited on the fabrics.
ST EDTA yellowing prevention laundering textile; triphosphate yellowing prevention laundering textile; dispersing iron discoloration prevention laundering; chelation iron discoloration prevention laundering; laundering yellowing prevention iron compd; discoloration prevention laundering textile iron; naphthalenesulfonate yellowing prevention laundering iron
IT **Fluorescent brighteners**
(adsorption of, on white textiles laundered in presence of iron compds. and triphosphate)
IT Discoloration prevention
(in laundering of white textiles in presence of iron compds., by triphosphates)
IT **Chelating agents and Complexing agents**
Dispersing agents
(laundering of white textiles in presence of iron compds. and, discoloration prevention in relation to)
IT Adsorption
(of fluorescence brighteners, on white textiles laundered in presence of iron compds. and triphosphate)
IT Laundering
(of white textiles, discoloration prevention in, in presence of iron compds., by triphosphate)
IT 7439-89-6, uses and miscellaneous
RL: USES (Uses)
(compds., white textiles laundered in presence of, discoloration prevention of, by triphosphate)
IT **139-33-3**
RL: USES (Uses)
(laundering of white textiles in presence of, yellowing in relation to)
IT 14127-68-5 36290-04-7
RL: USES (Uses)
(yellowing prevention by, in laundering of white textiles in presence of iron compds.)
IT **139-33-3**
RL: USES (Uses)
(laundering of white textiles in presence of, yellowing in relation to)
RN 139-33-3 HCAPLUS
CN Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, disodium salt (9CI) (CA INDEX NAME)



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